British Liver Transplant Group

BTS British Transplantation Society

The Voice of Transplantation in the UK

NHS Blood and Transplant

UK Living Donor Liver Transplantation (LDLT) Network Meeting

Tuesday 21st May 2024

This meeting has been sponsored by Chiesi, with funding contributing towards venue hire and stand space only, and have had no input into the educational content of the meeting. Sponsorship of the event does not equate to the endorsement of Chiesi or its products.

Chiesi representatives will be present throughout the meeting.

Chiesi

Please send your feedback …scan the QR code:

UK LIVING DONOR LIVER TRANSPLANTATION (UK LDLT) NETWORK MEETING, 21st May

HOUSEKEEPING

Programme- Overview

NHS Blood and Transplant

Session 1 10:00-11:30	Session 2 12:00-13:30	Session 3 14:30-15:30	Session 4 15:30-16:30
Setting the Scene Activity Overview LDLT Project Overview Operational Model in Practice	**Clinical Session: Theory into Practice** Donor Assessment	**Equity of Access to LDLT: How do we do it?** Referral Pathways for Transplant and Non-transplant Centres	**How do we address current inequity of access to non-directed altruistic donation?**
Presentations Q&A	Clinical case studies Panel and audience discussion	Table-top discussion Plenary feedback	Individual Perspectives Q&A
Coffee 11:30-12:00	**Lunch 13:30-14:30**		**Close 16:30-16:45**

NHS
Blood and Transplant

Overview of Living Donor Liver Transplant Activity

Rhiannon Taylor
Statistics and Clinical Research, NHSBT

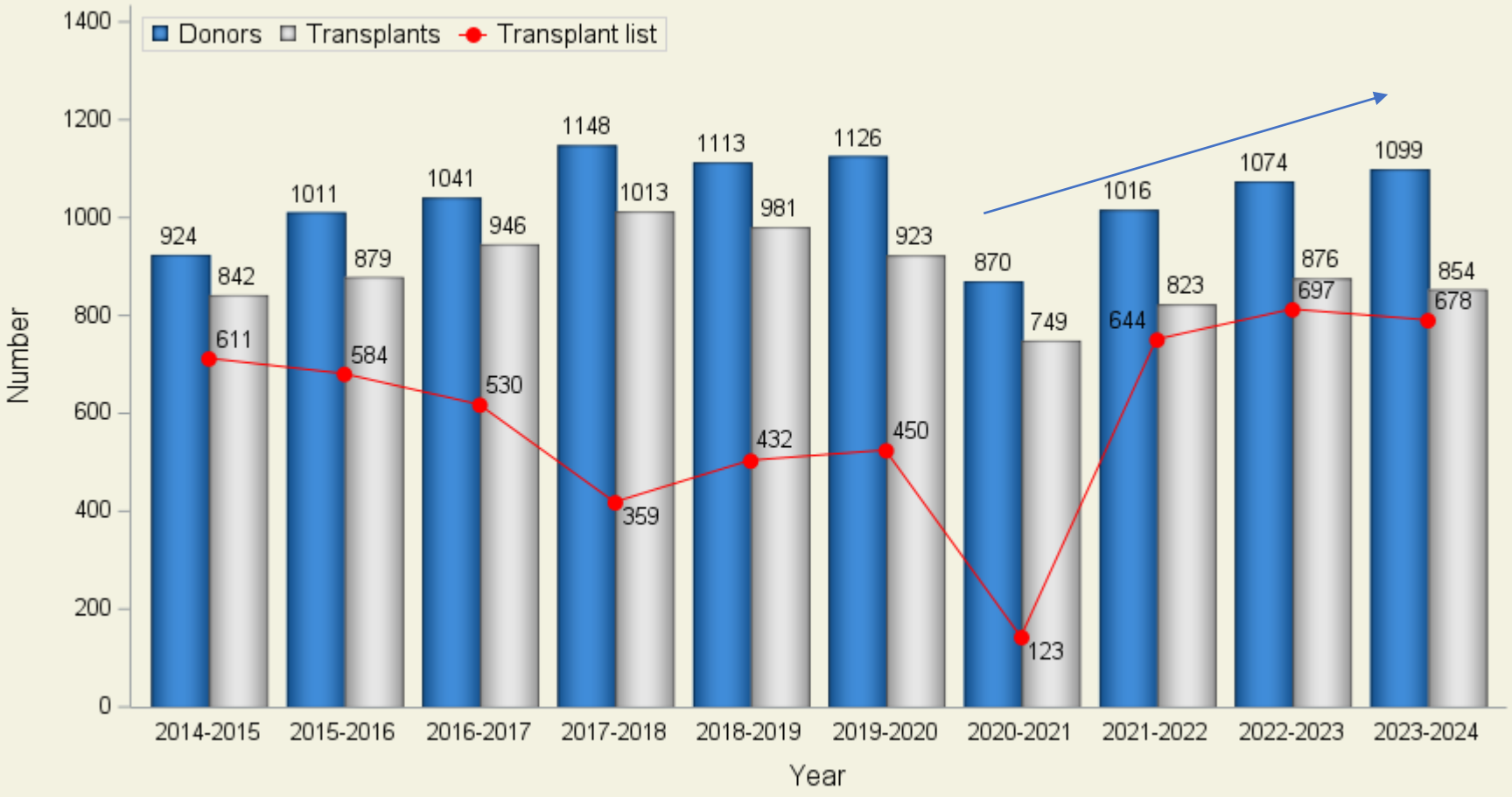
Caring Expert Quality

NHS
Blood and Transplant

Summary of Activity

Deceased donors, transplants and transplant list

NHS Blood and Transplant



Over the last year

Increase in deceased liver donors

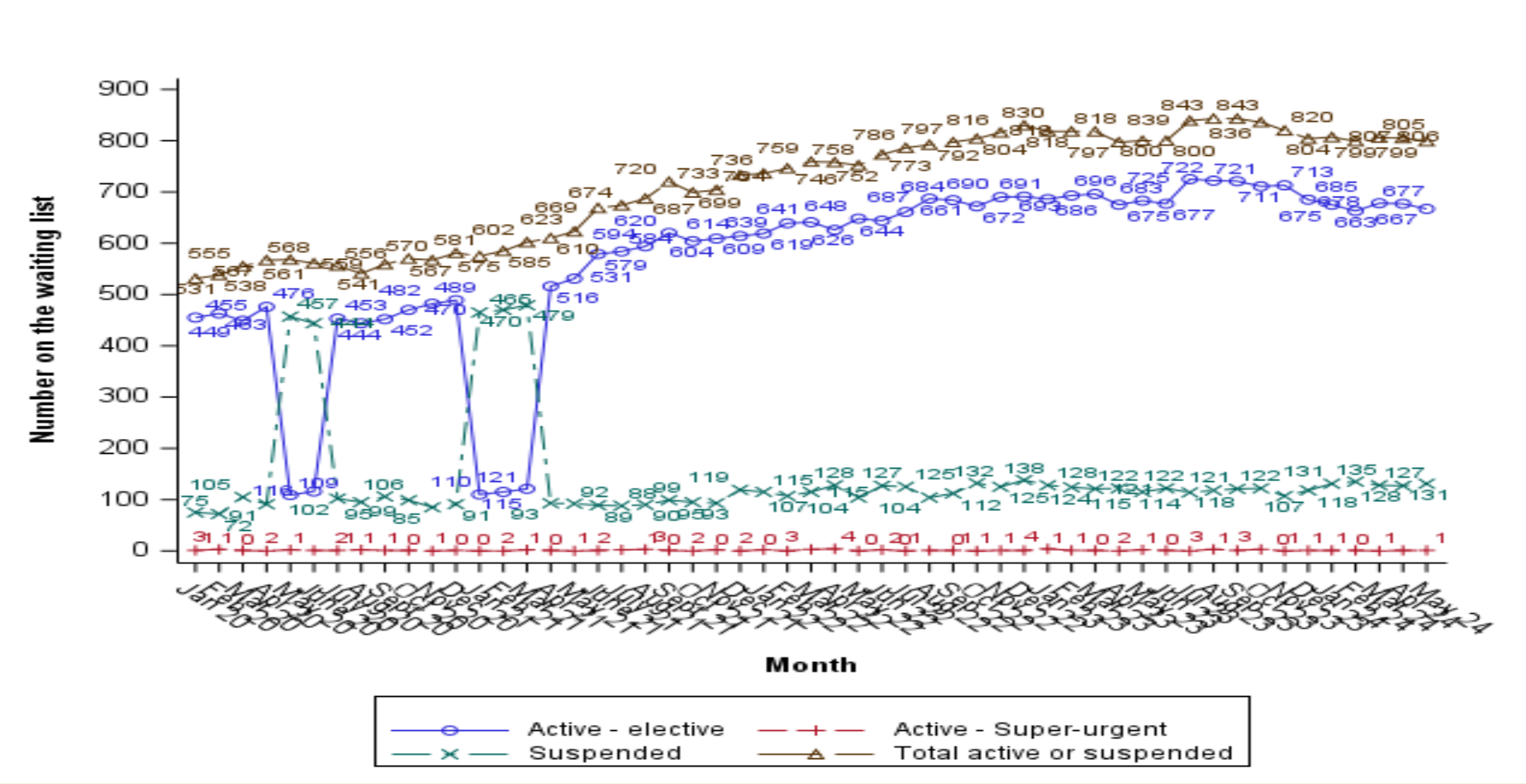
Slight decrease in number of transplants

Transplant list larger than 10 years ago

Caring Expert Quality

UK liver transplant list

NHS Blood and Transplant

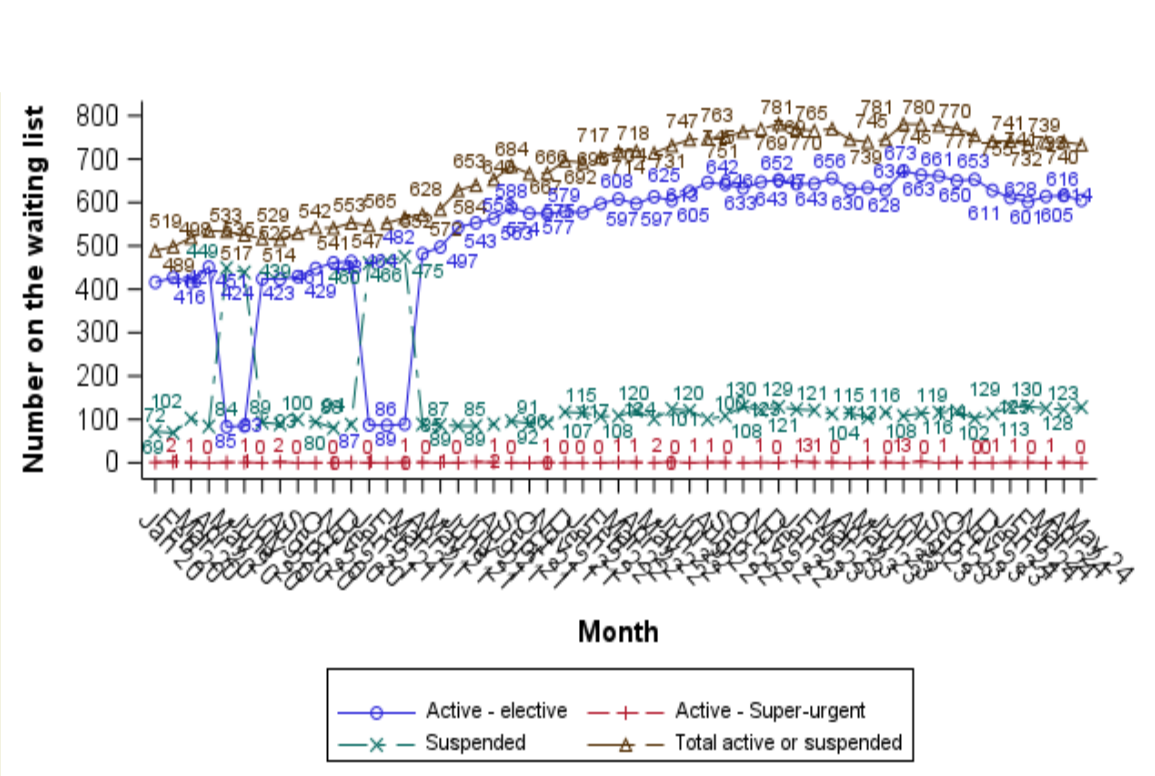


Caring Expert Quality

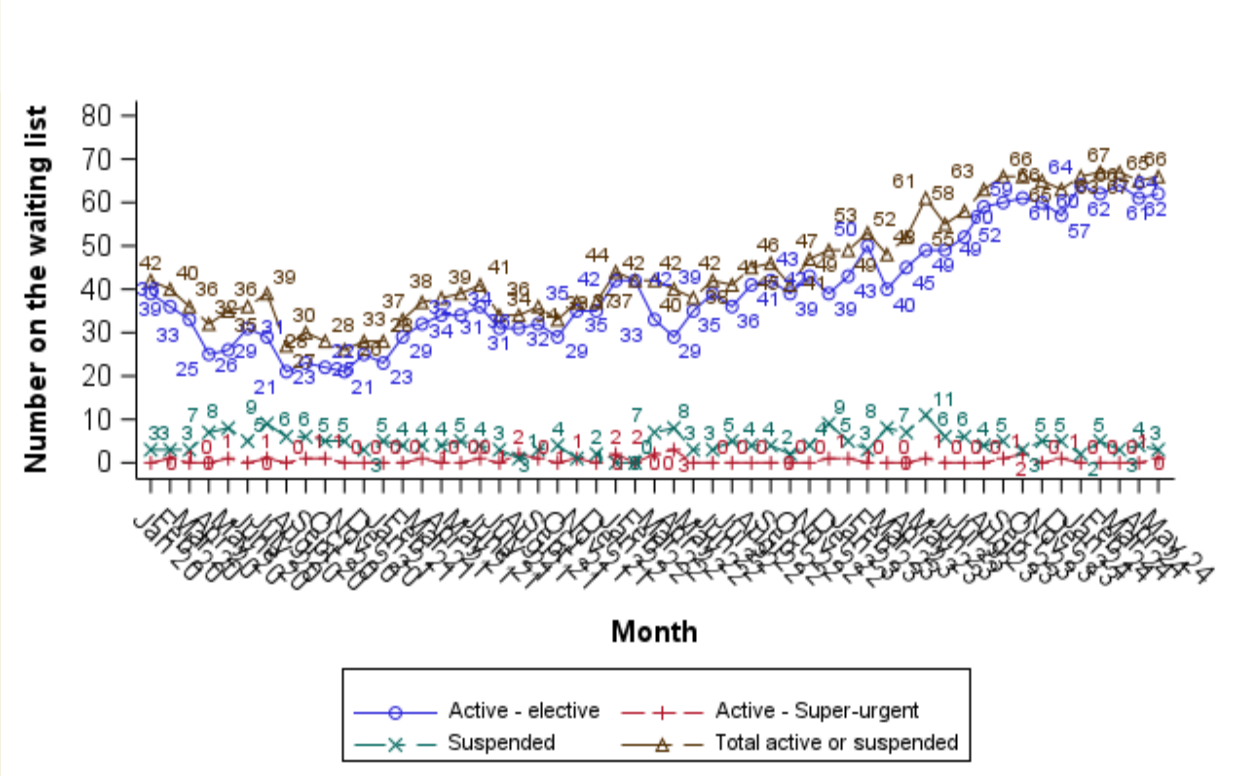
UK liver transplant list

NHS Blood and Transplant

Adult



Paediatric



Increase in transplant list observed for both paediatric and adult patients

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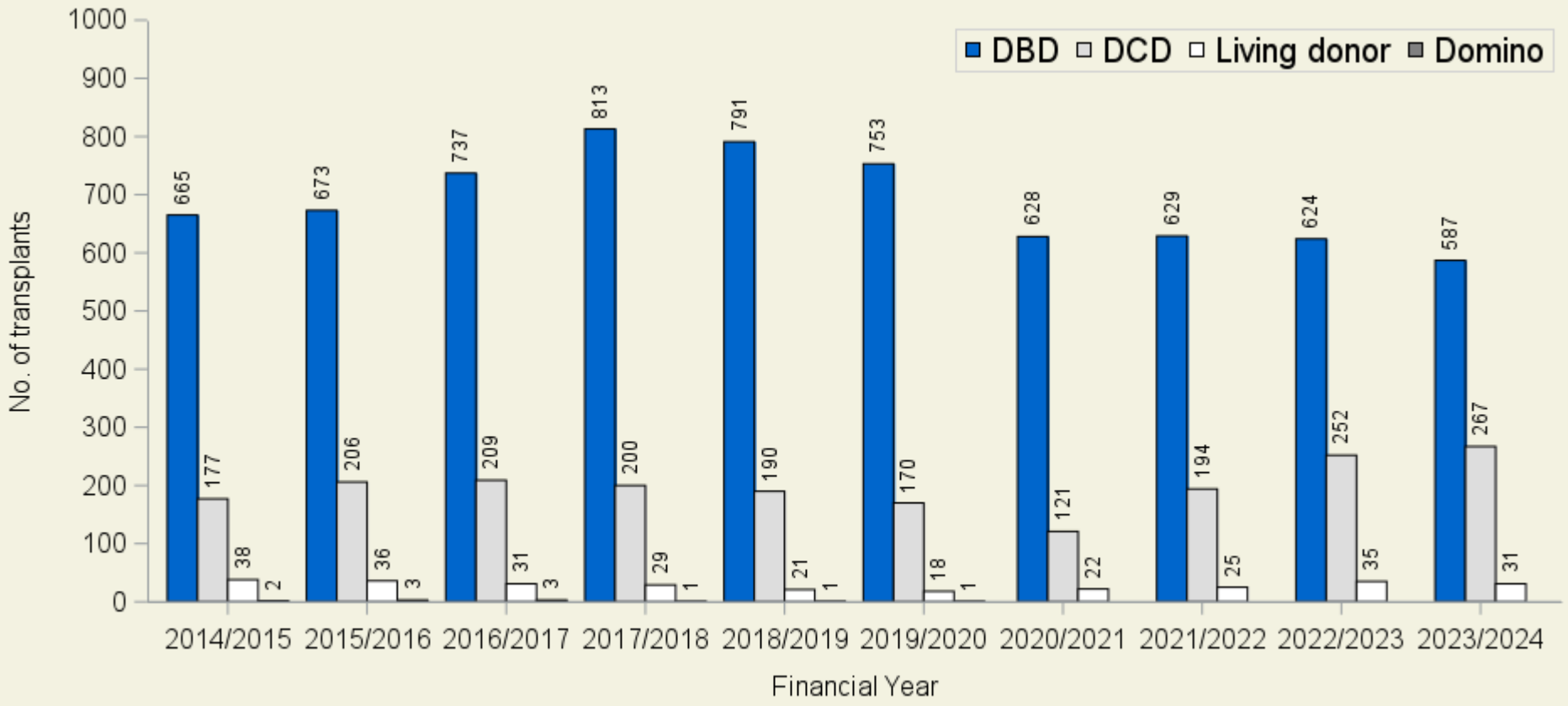
UK liver transplant activity

NHS Blood and Transplant



Over the last year

Decrease in DBD donors

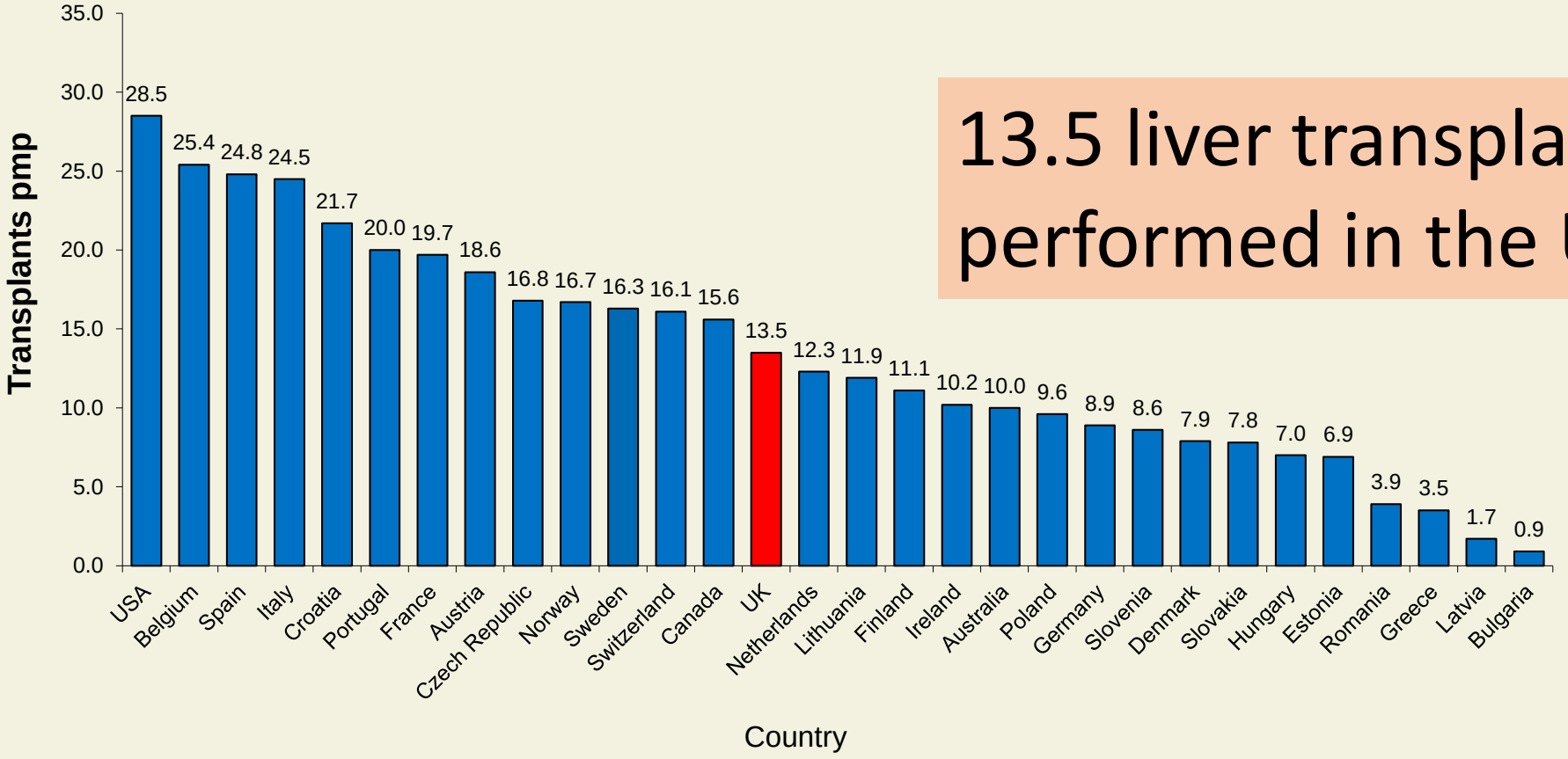
Increase in DCD donors

Living donation has remained static
Median: 30 per year
Range: 18 - 38

286 living donor transplants performed

Caring Expert Quality

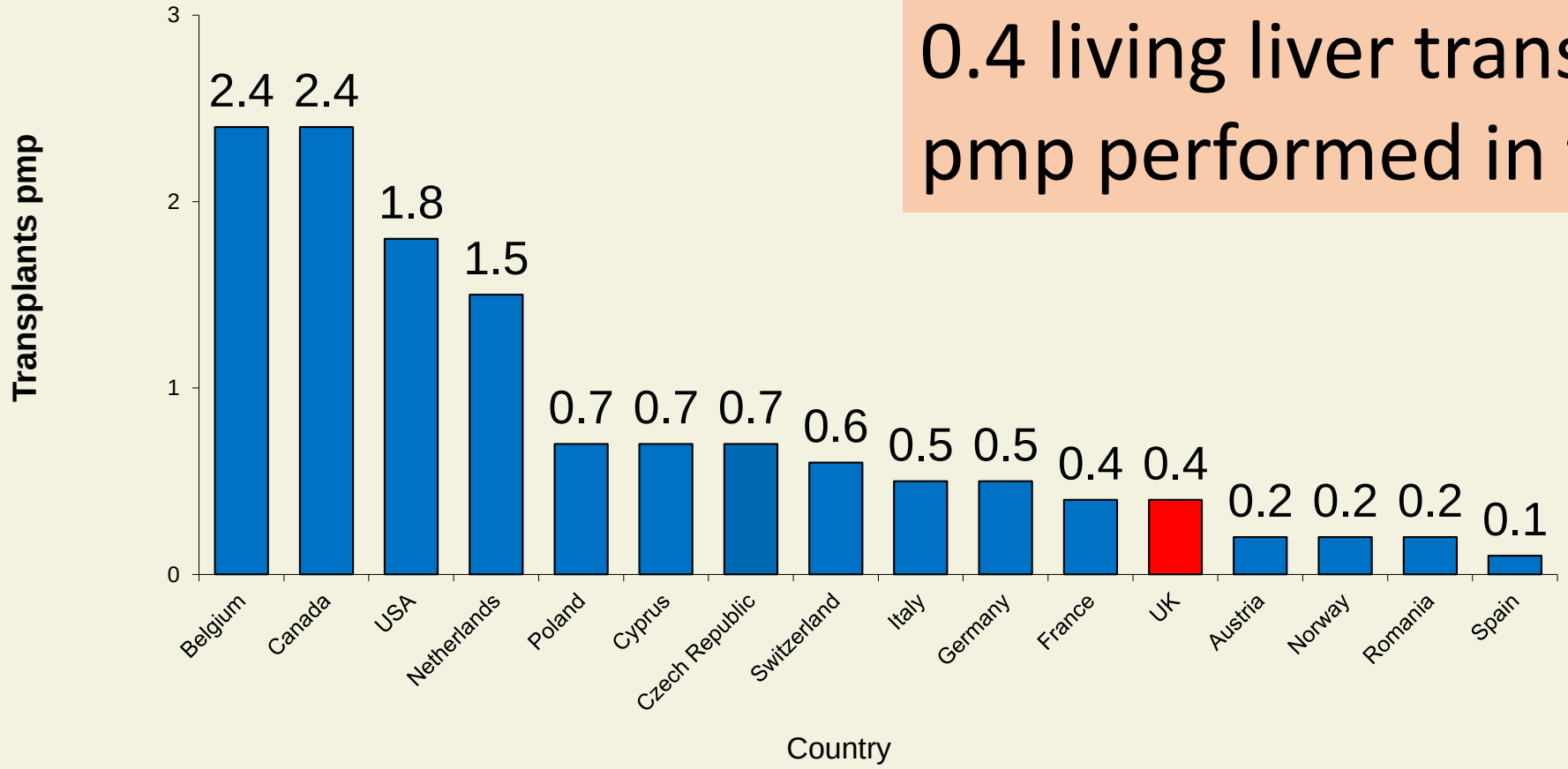
International liver transplant rates, 2022



13.5 liver transplants pmp performed in the UK

Source: Council of Europe – Transplant Newsletter

Living donor liver transplant rates, 2022

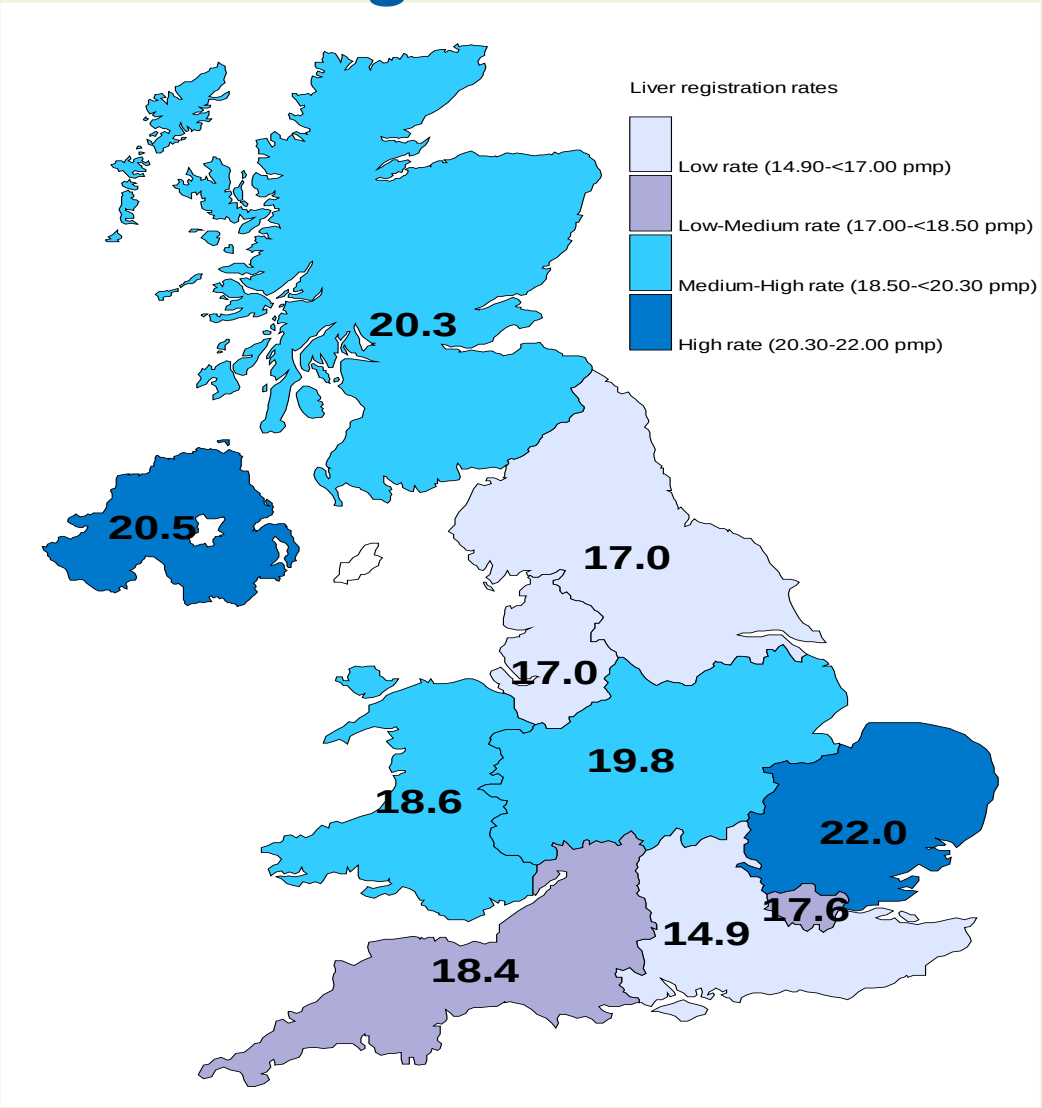


0.4 living liver transplants pmp performed in the UK

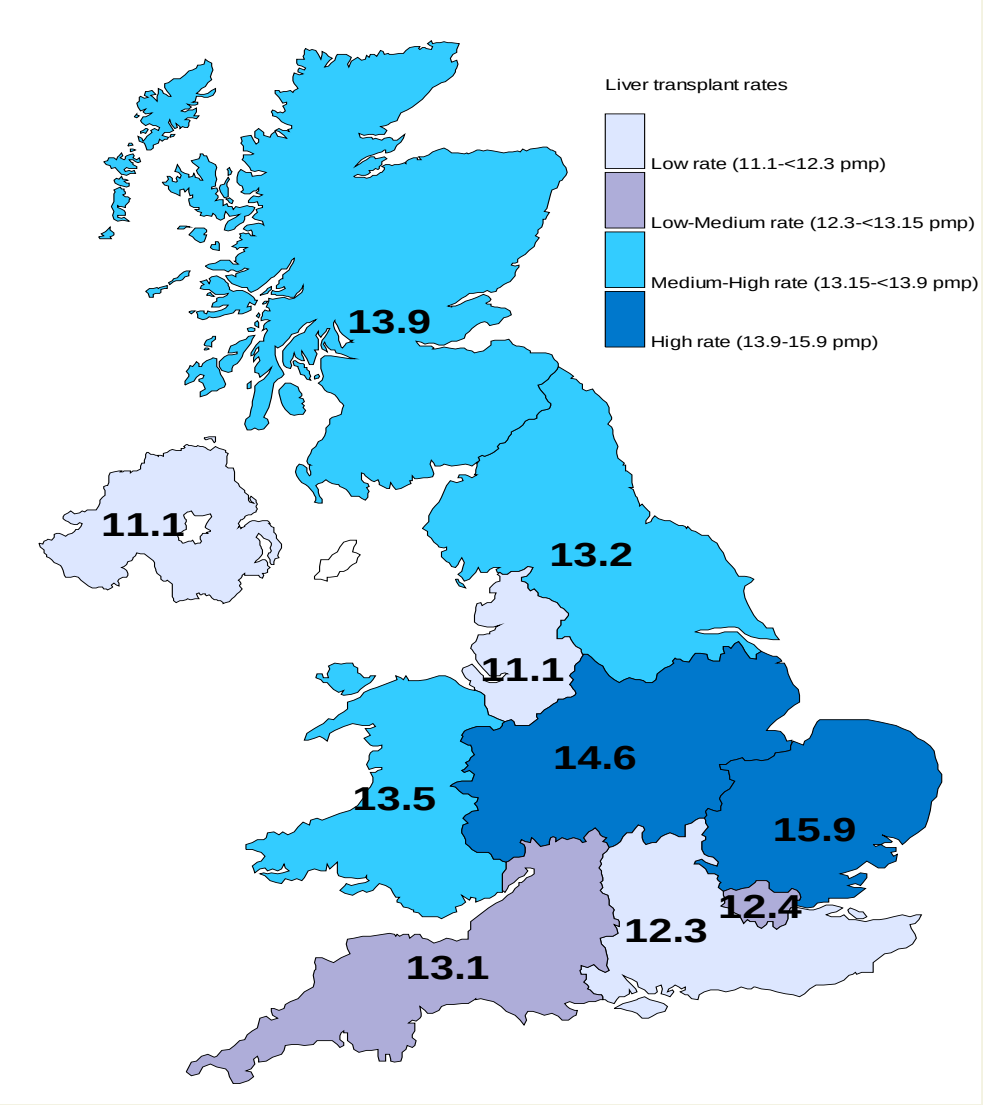
Source: Council of Europe – Transplant Newsletter

Geographical variation - recipient

Registrations

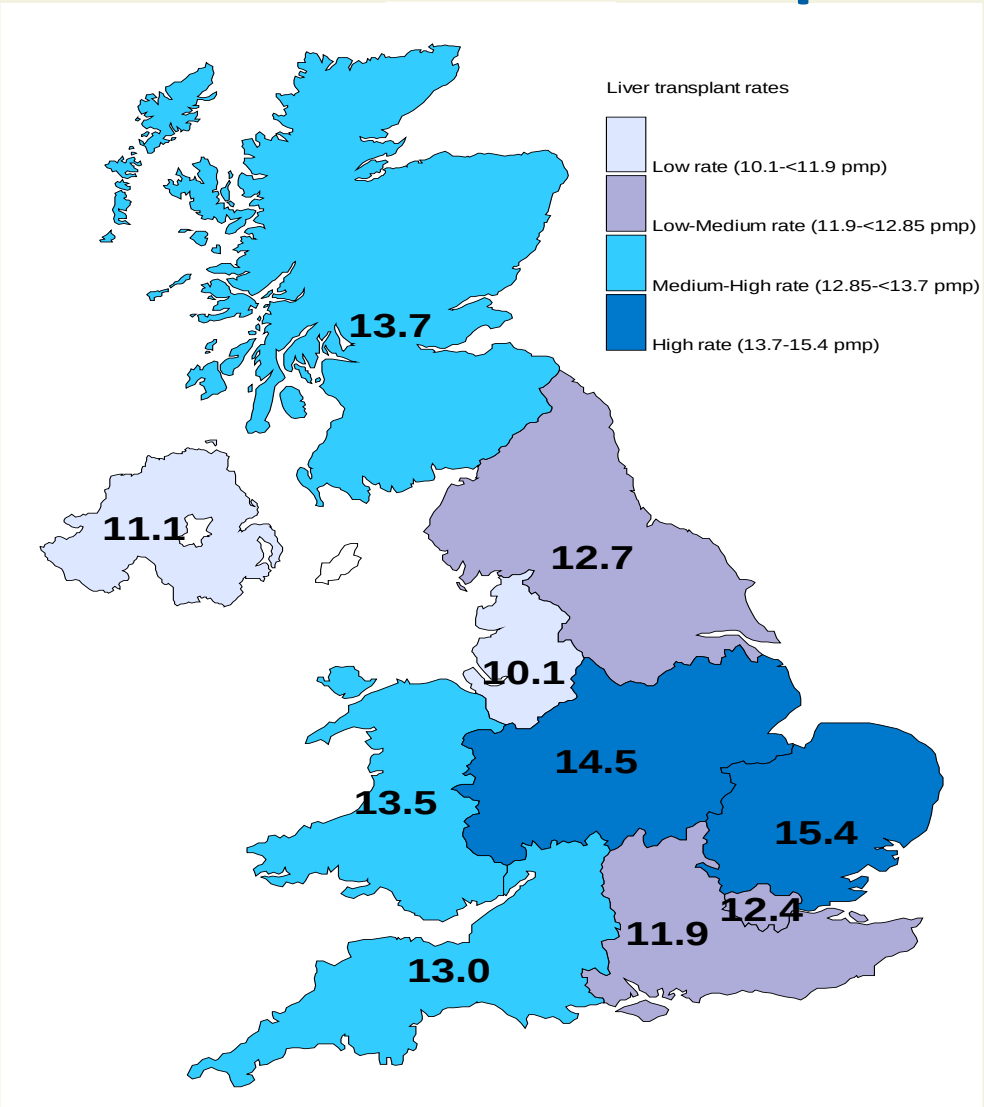


Transplants

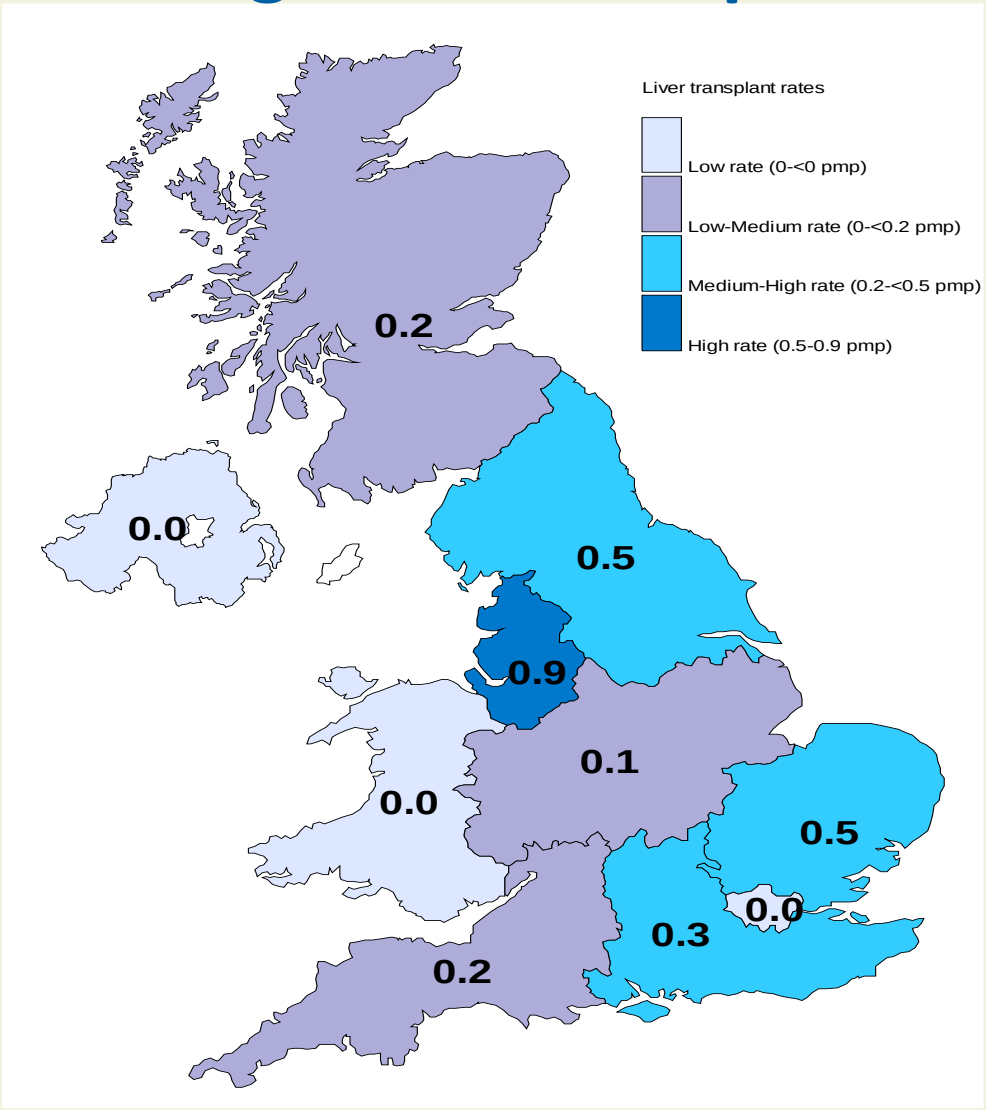


Geographical variation - recipient

Deceased donor transplant

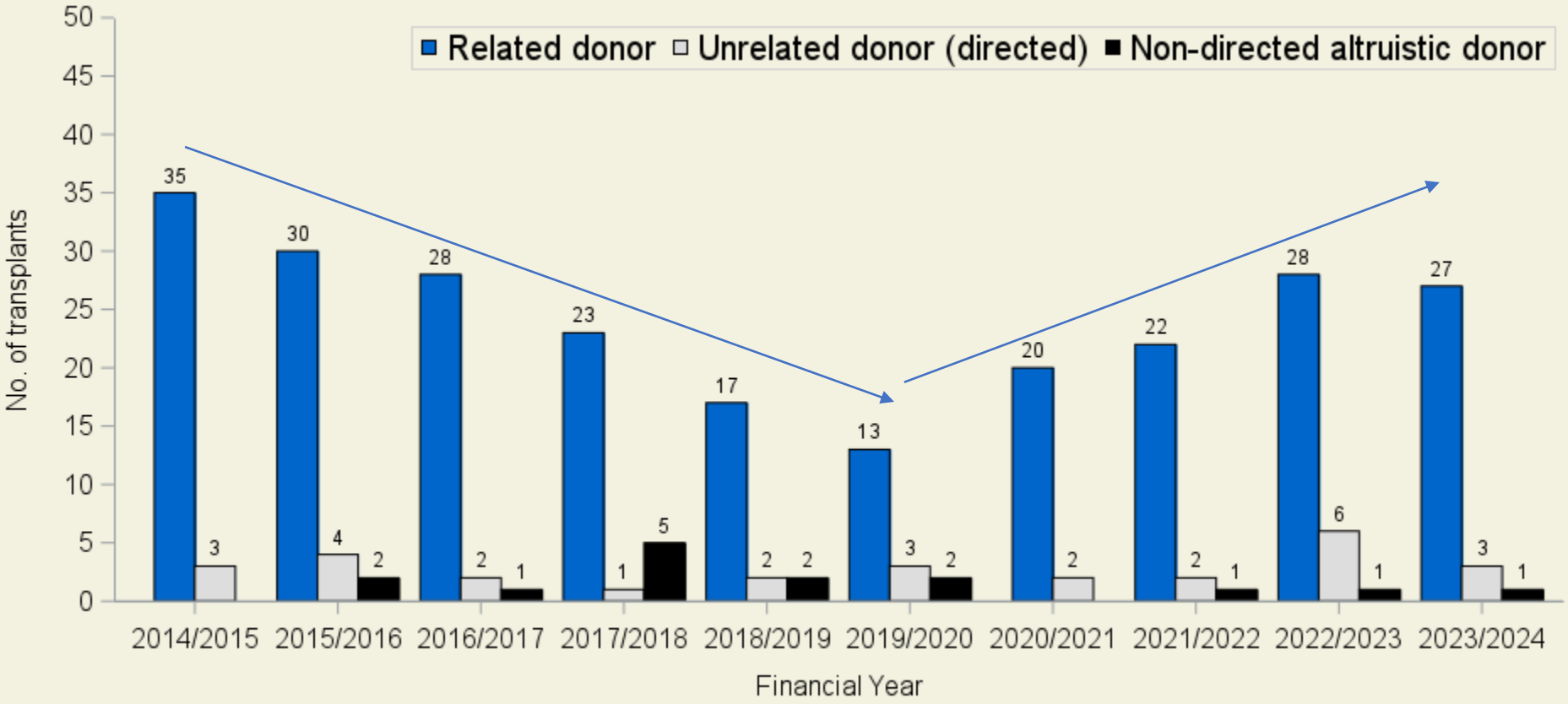


Living donor transplants



UK living liver transplant activity
- donor type

NHS Blood and Transplant



286 living donor transplants

- 271 (95%) directed
  - 243 (90%) related
- 15 non-directed altruistic donors
  - 13 paediatric recipients

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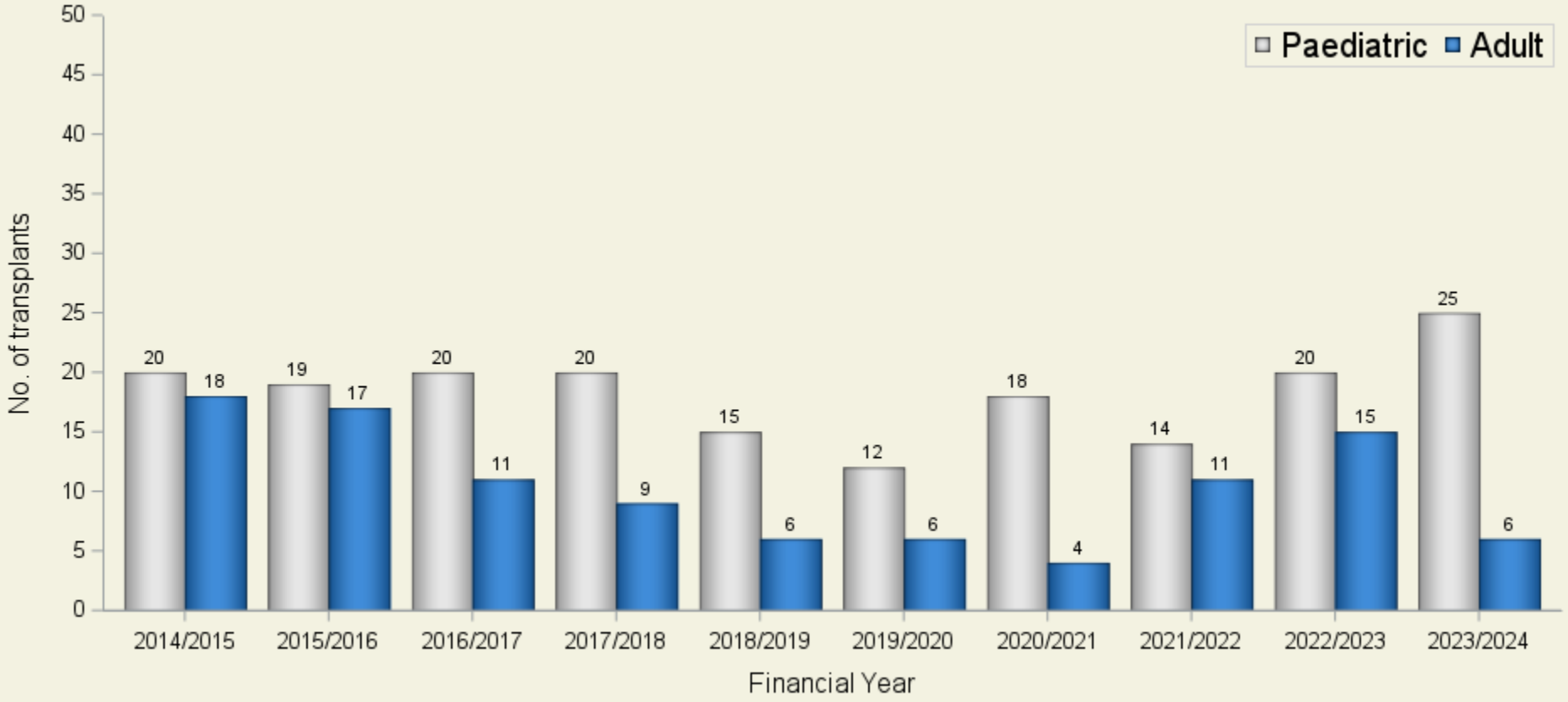
UK living liver transplant activity
- recipient age group

NHS Blood and Transplant



286 living donor transplants

- 183 (64%) paediatric recipients
- 103 (36%) adult recipients
  Median: 10 per year
  Range: 4 - 18

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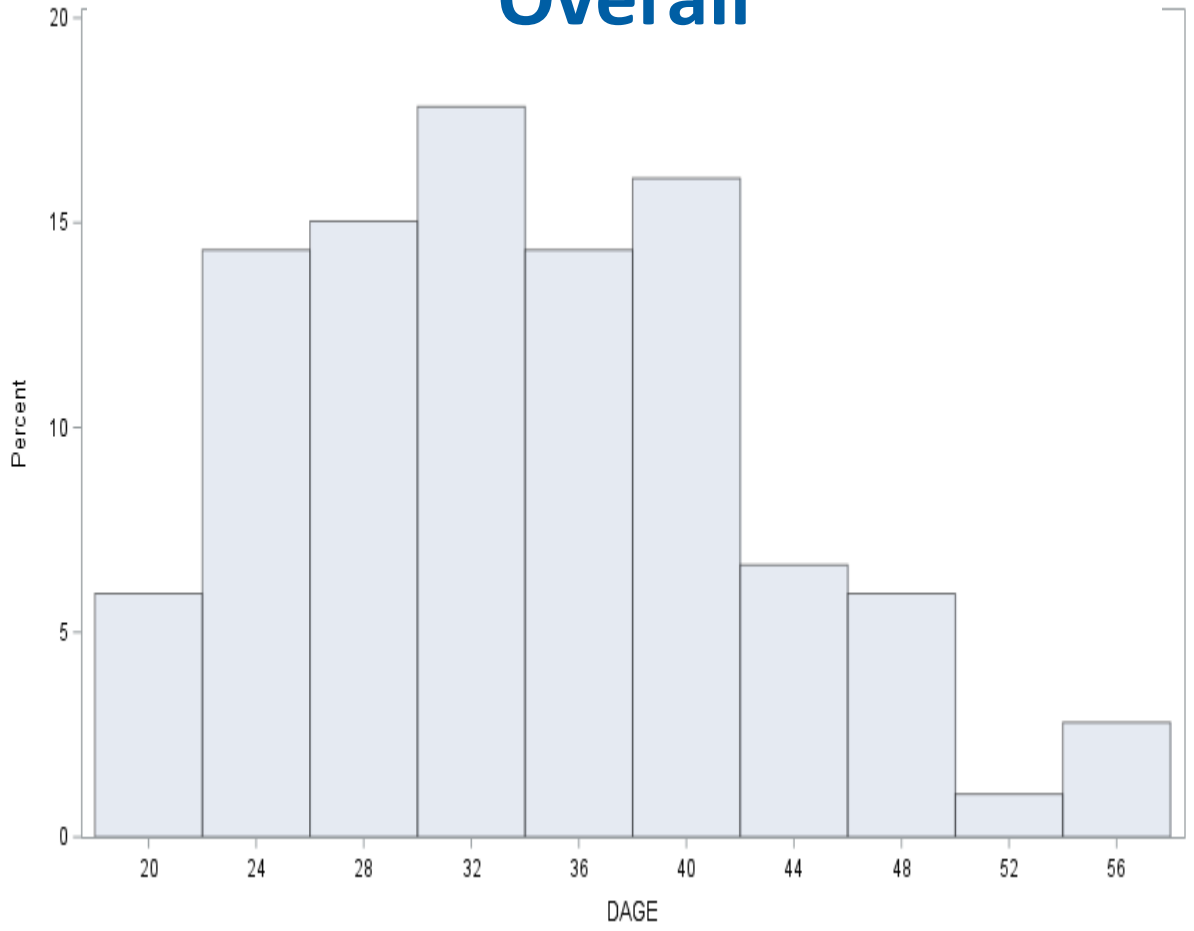
Living donor age

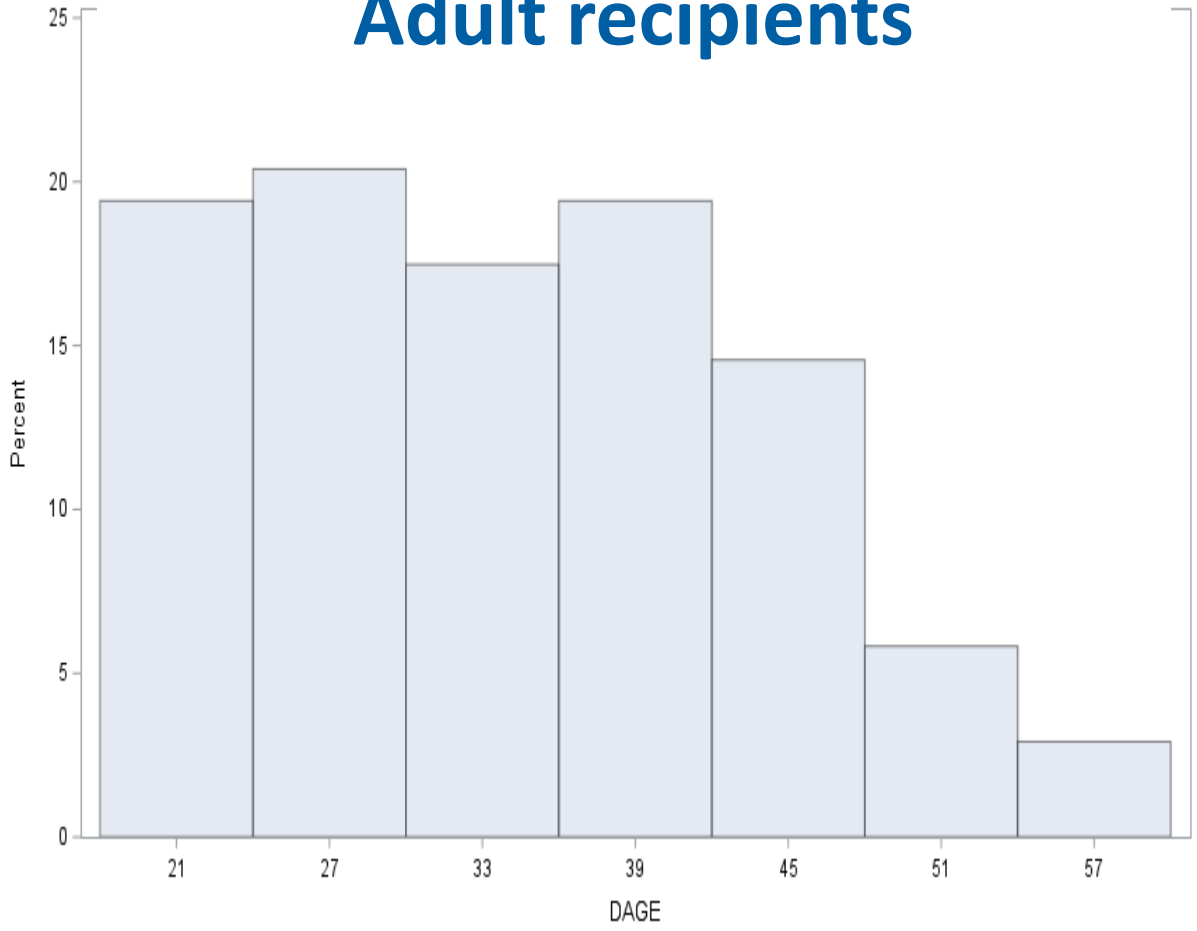
NHS Blood and Transplant

Overall



Median (IQR; range) donor age: 32 (25,41; 18,57)

Adult recipients



Median (IQR; range) donor age: 33 (27,39; 18,57)

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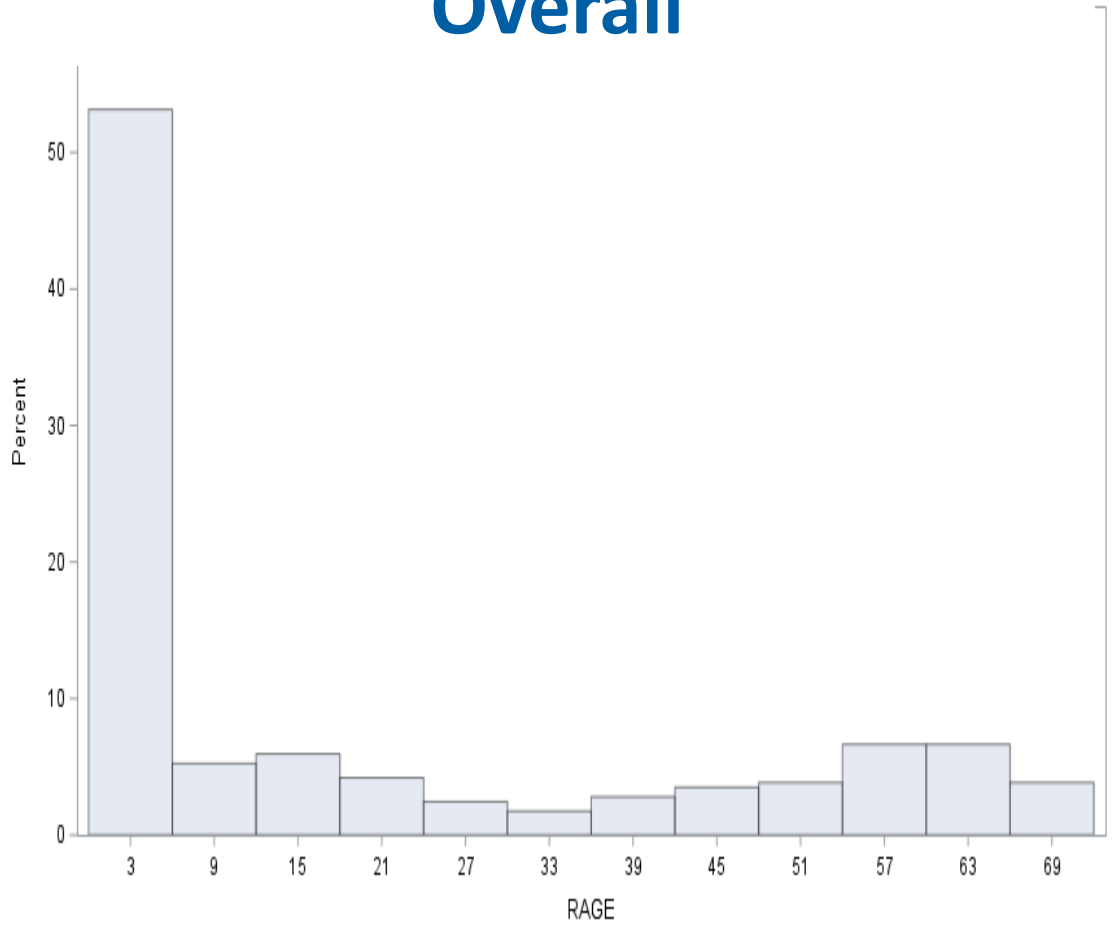
Recipient age

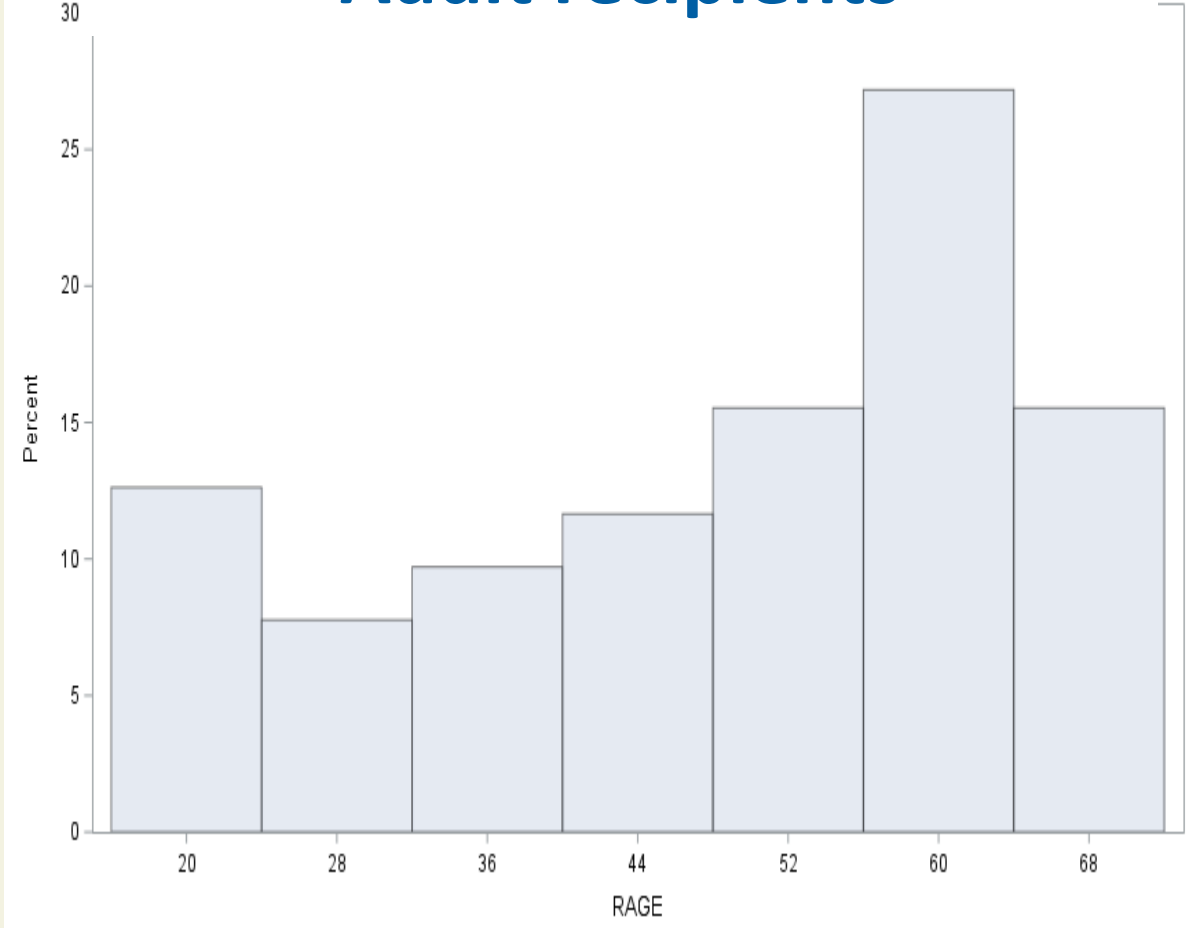
NHS
Blood and Transplant

Overall



Median (IQR; range) age: 4 (1,40; 0, 71)

Adult recipients



Median (IQR; range) age: 53 (36,60; 17,71)

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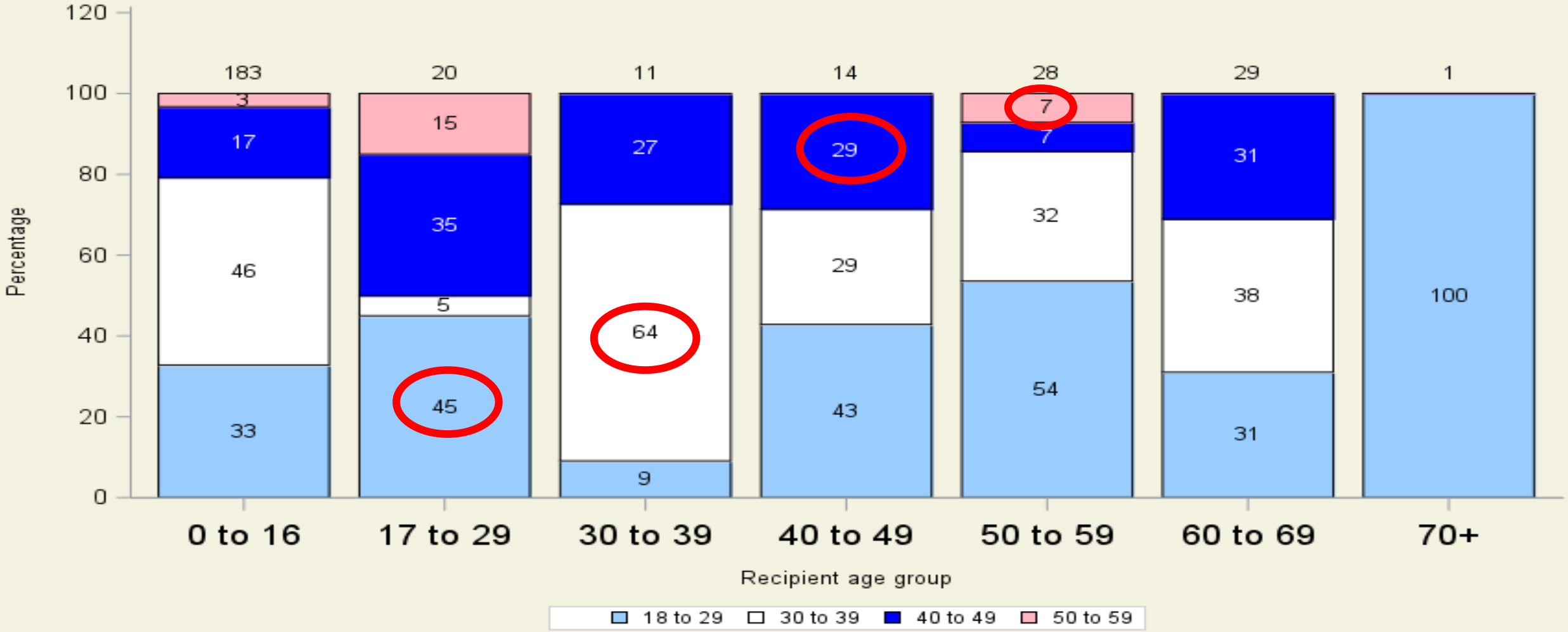
Donor to recipient age

NHS Blood and Transplant



Median (range) donor to recipient age difference: -21 (-45,35) (ADULT)
+31(9,56) (PAEDIATRIC)

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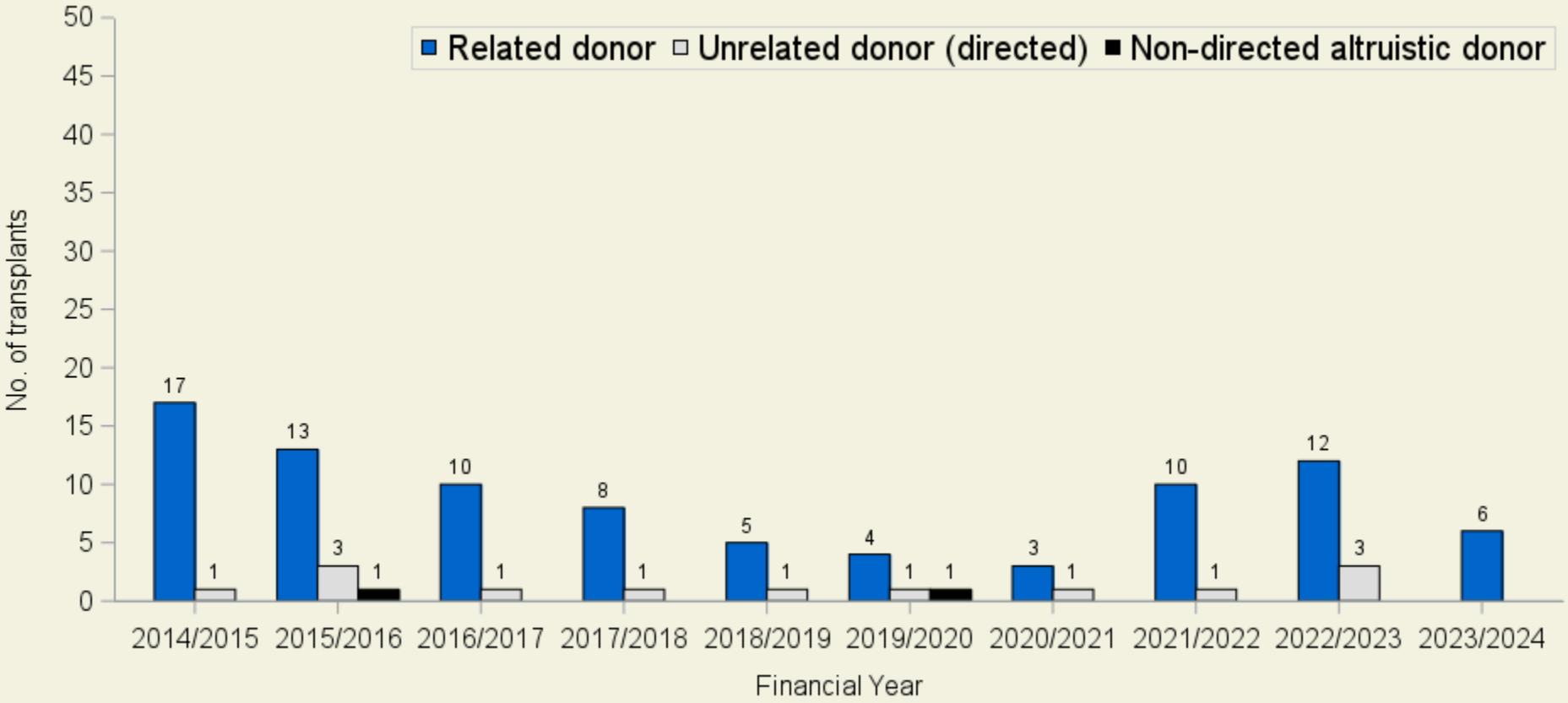
Blood and Transplant

Adult recipient activity

UK adult living liver transplant activity

NHS Blood and Transplant



103 living donor transplants

- 101 (98%) directed
  - 88 (87%) related

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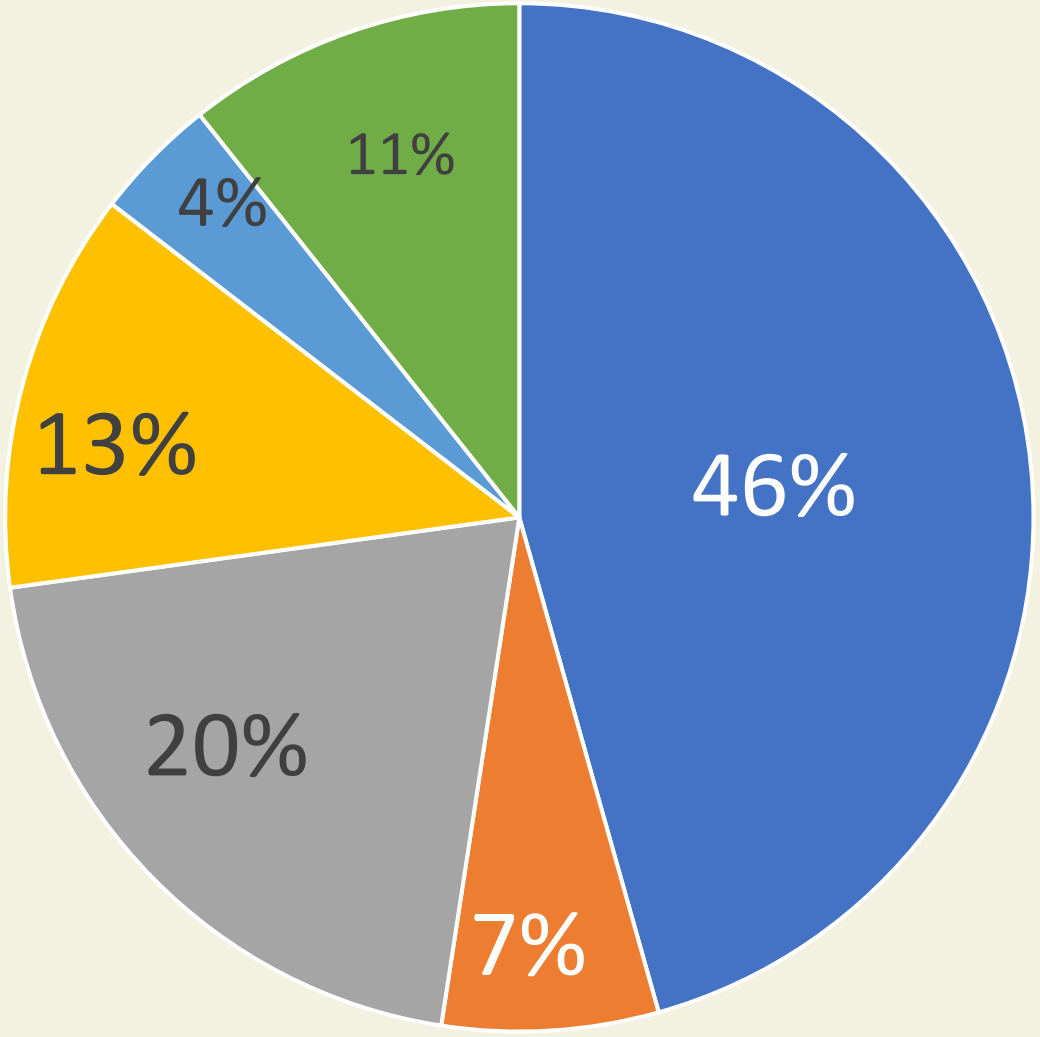
Donor to recipient relationship

NHS Blood and Transplant



- Son or daughter
- Mother or father
- Sibling
- Other genetic relationship, please specify
- Spouse/ partner
- Other non-genetic relationship, please specify

88 (85%) had a genetic relationship with the recipient

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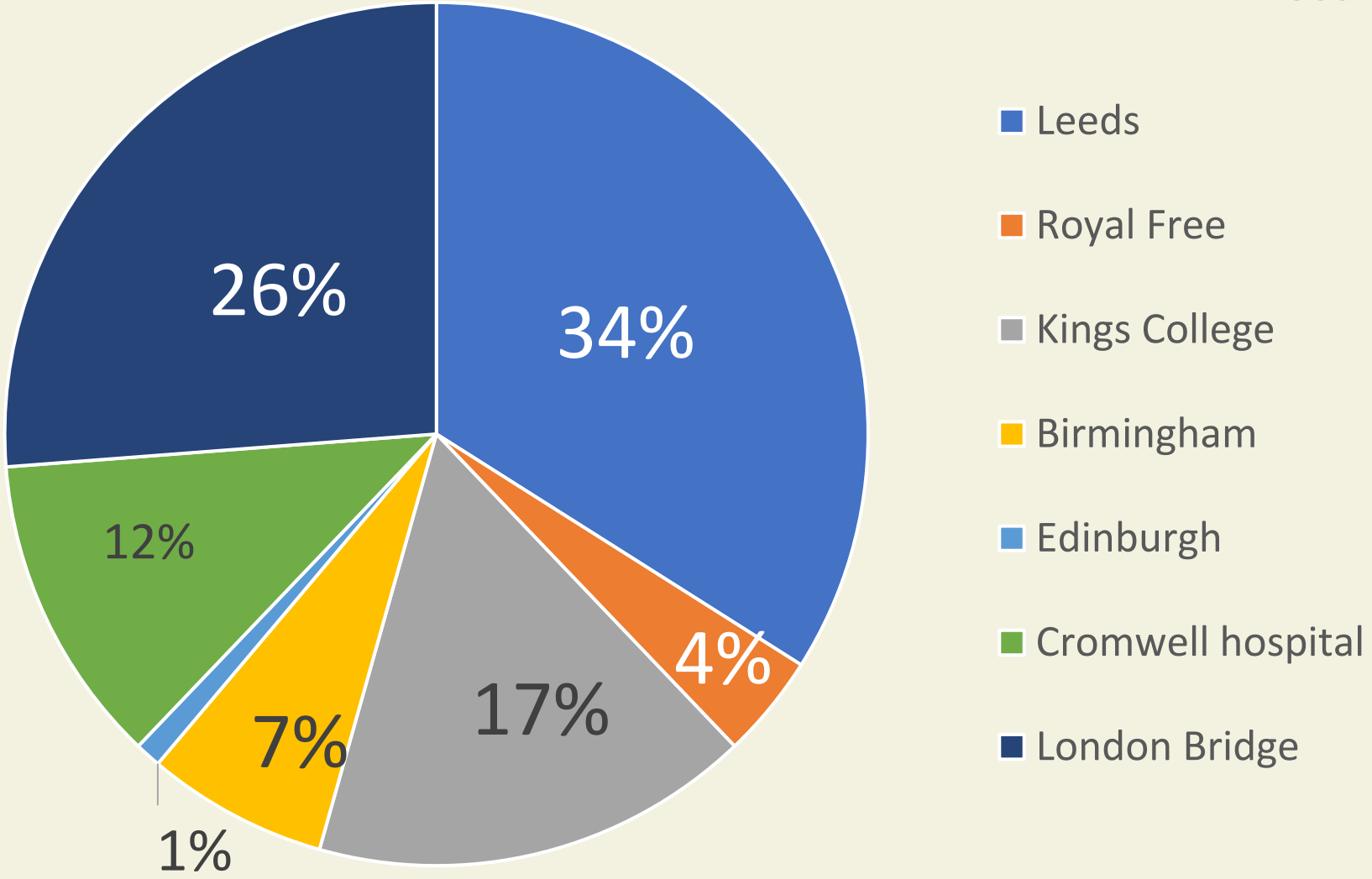
Transplant centre

NHS Blood and Transplant

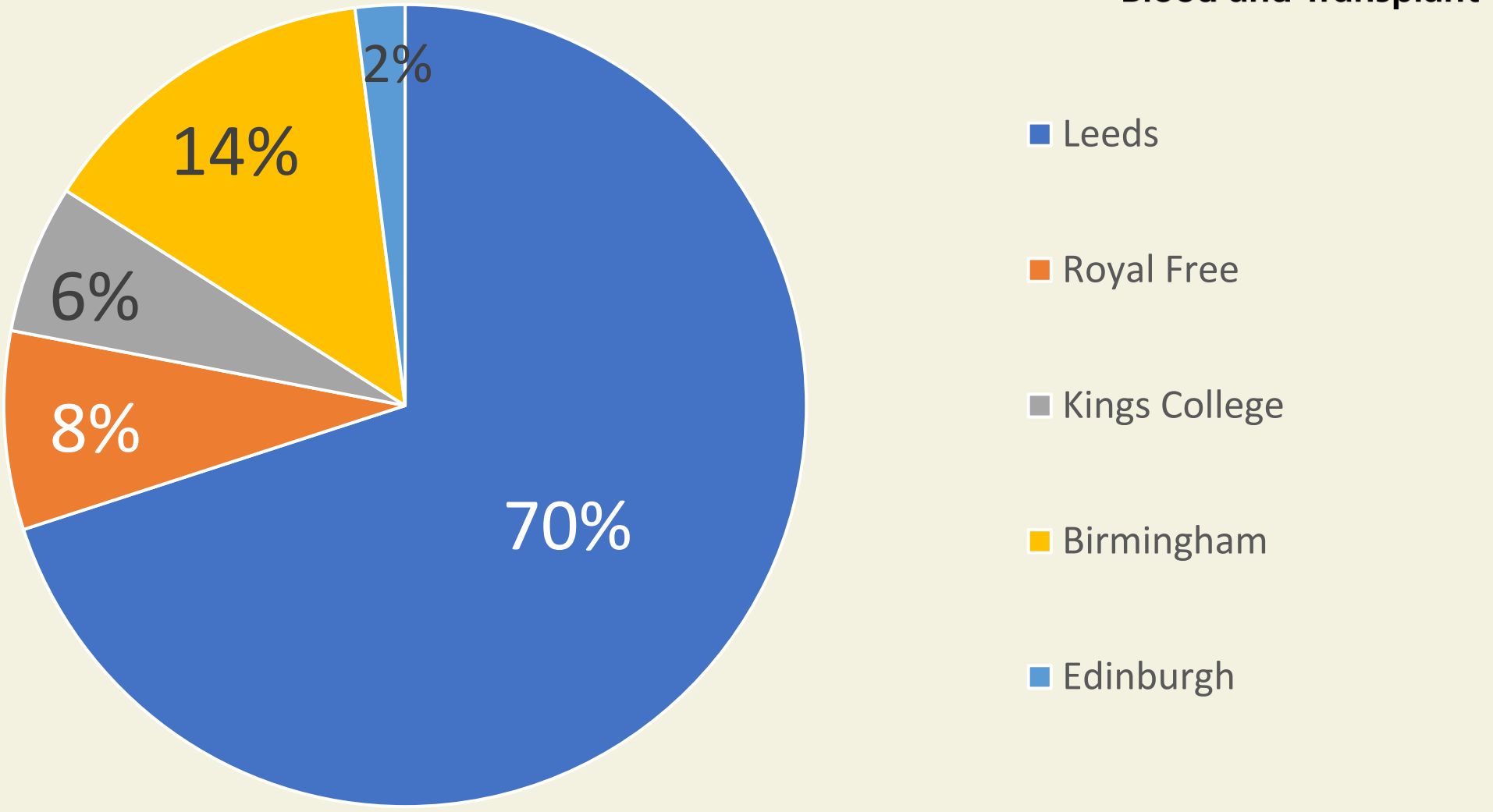


50 (49%) NHS Group 1 patients

Caring Expert Quality

Transplant centre for NHS Group 1

NHS Blood and Transplant



35 (70%) performed at Leeds

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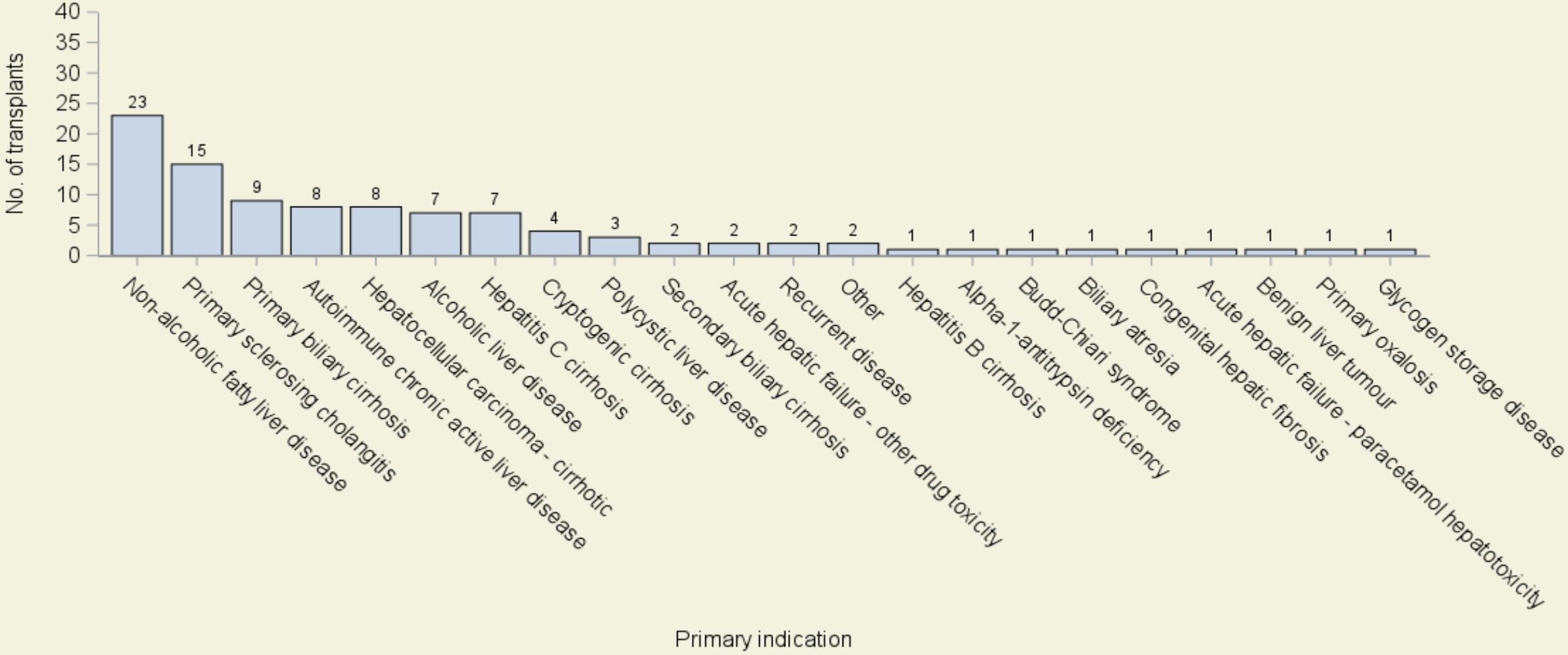
Primary indication

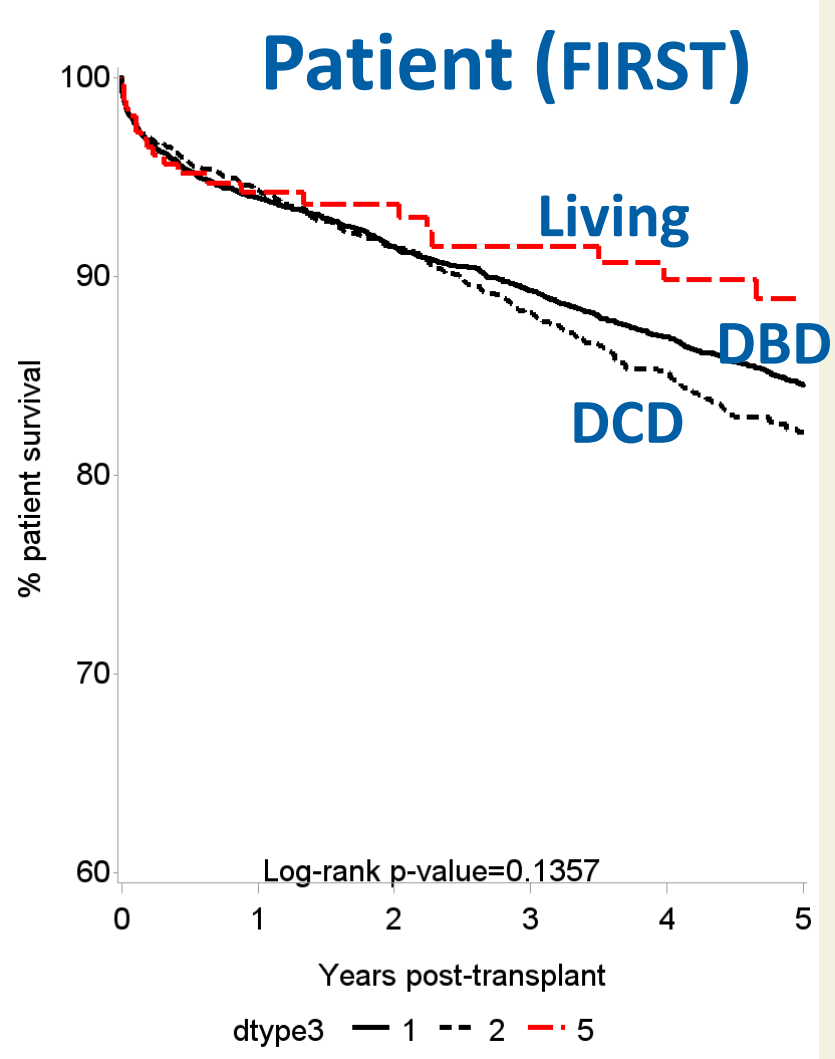
NHS
Blood and Transplant

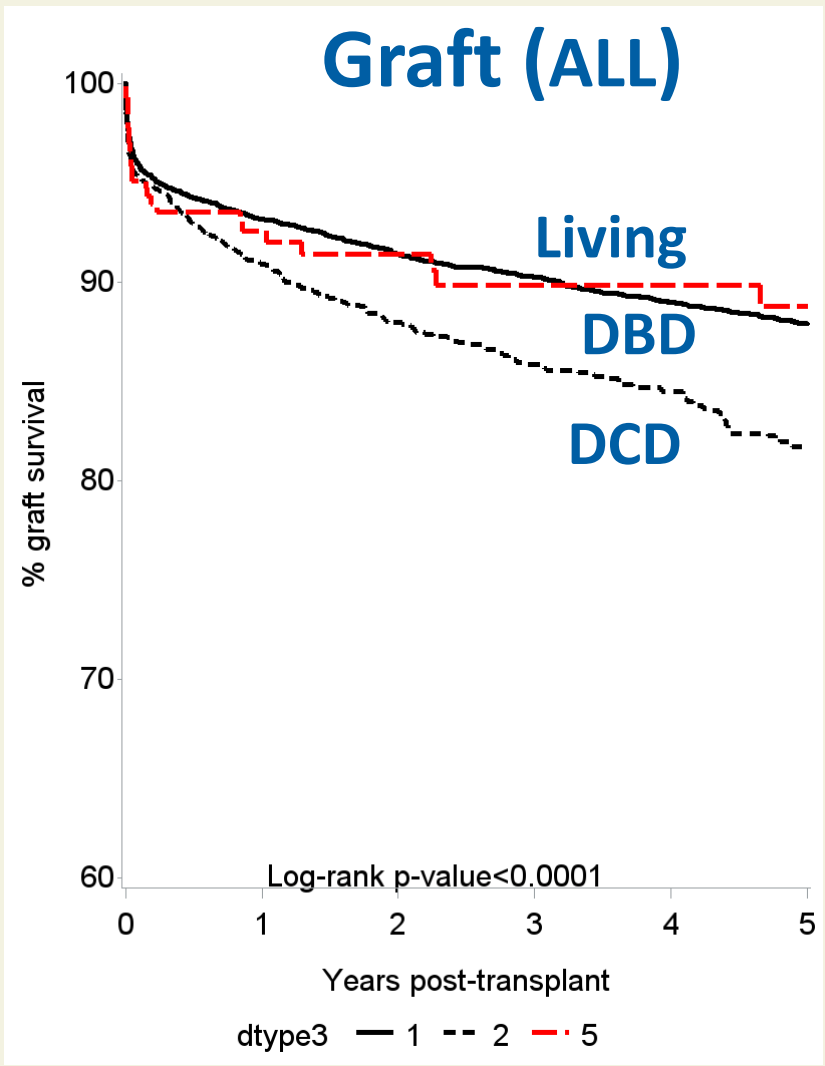


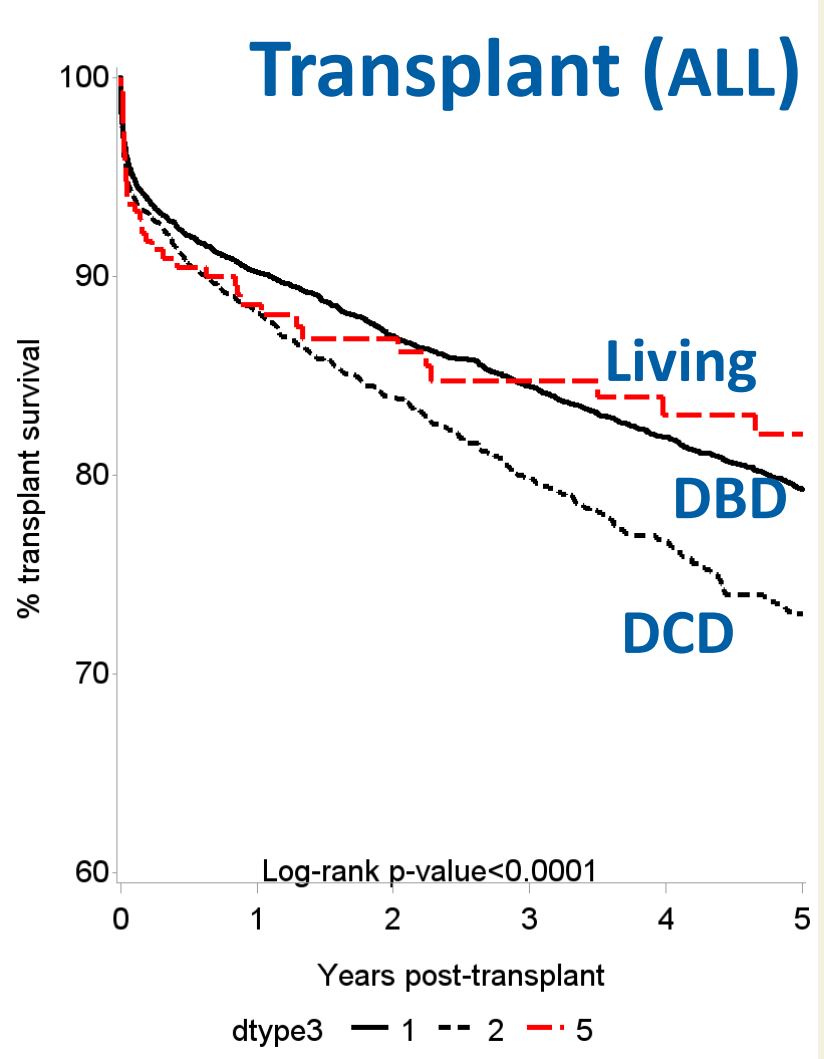
Caring Expert Quality

5 year survival post-transplant

NHS Blood and Transplant



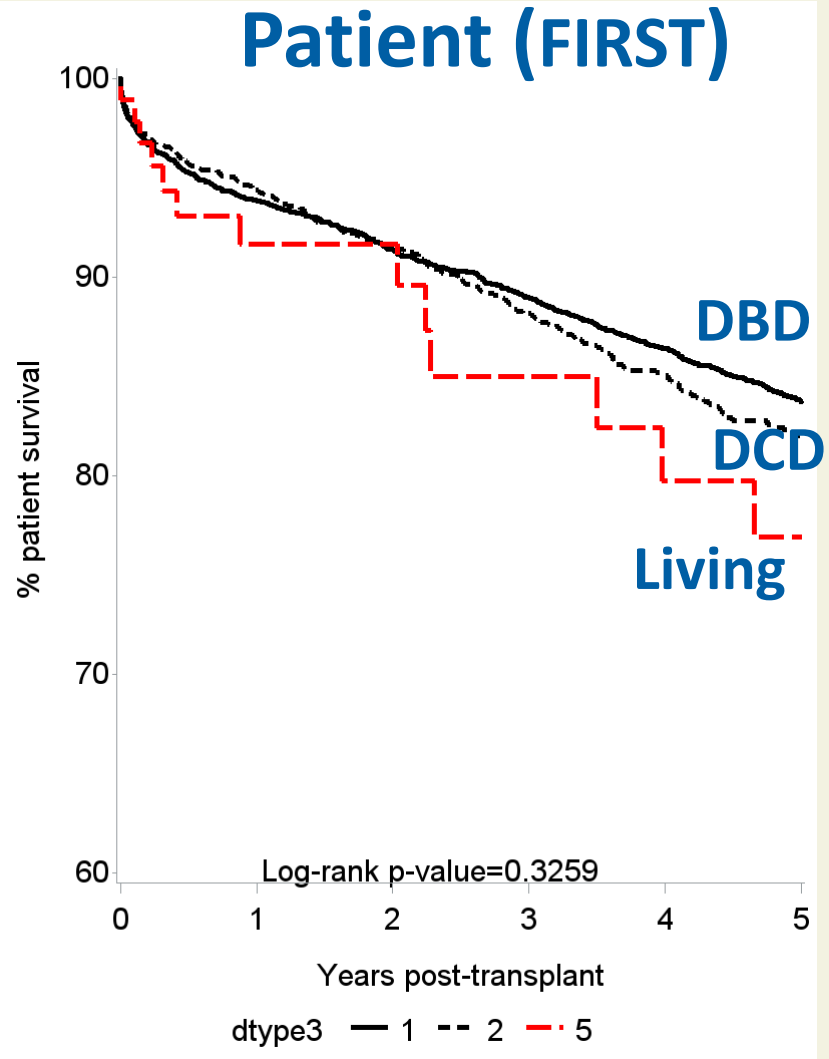


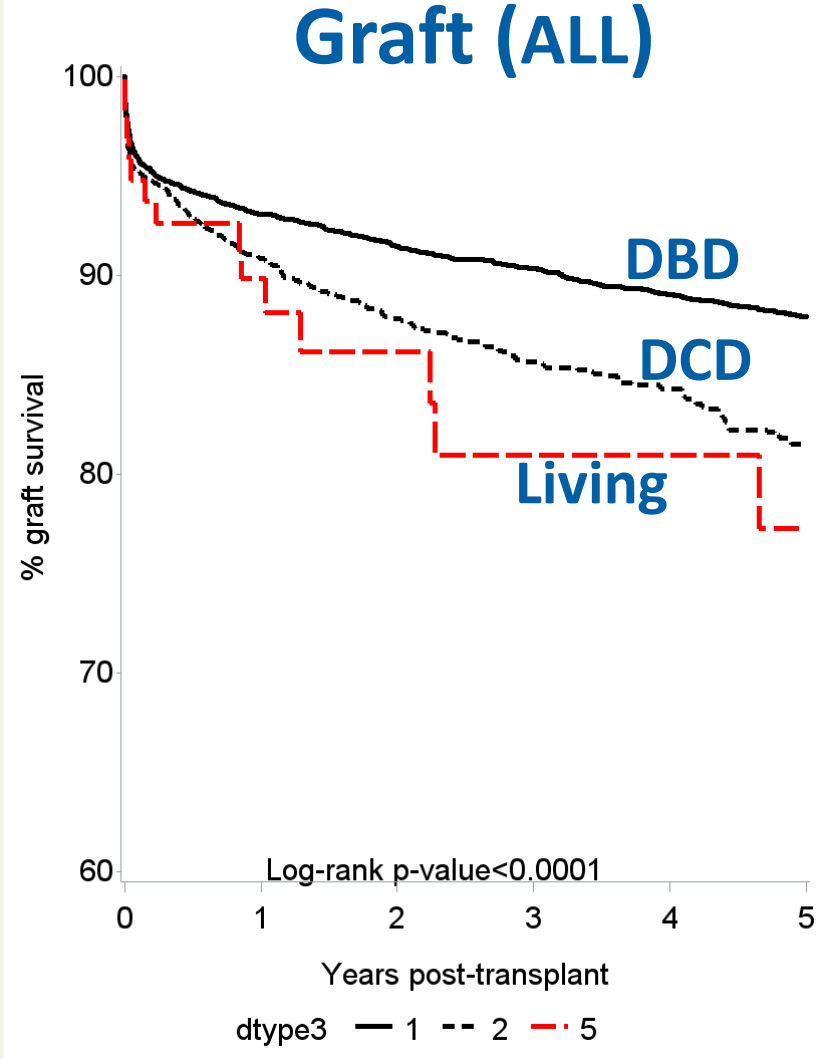


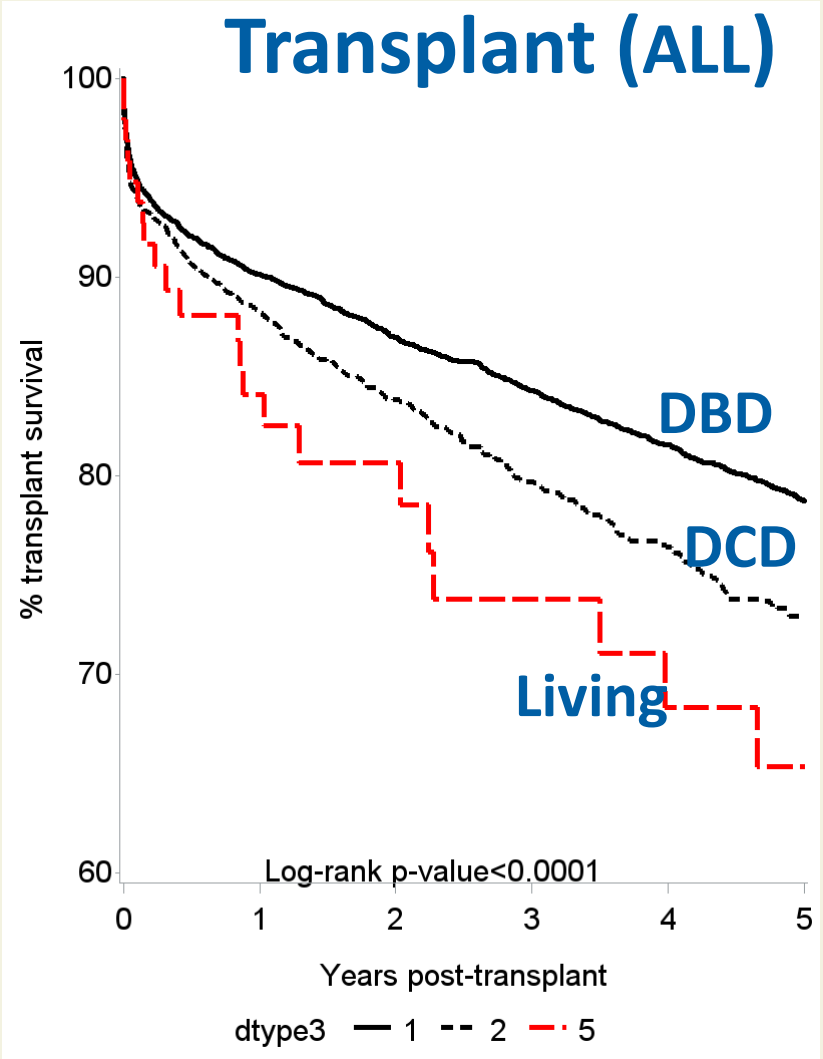
Caring Expert Quality

5 year survival post-transplant - ADULT

NHS Blood and Transplant



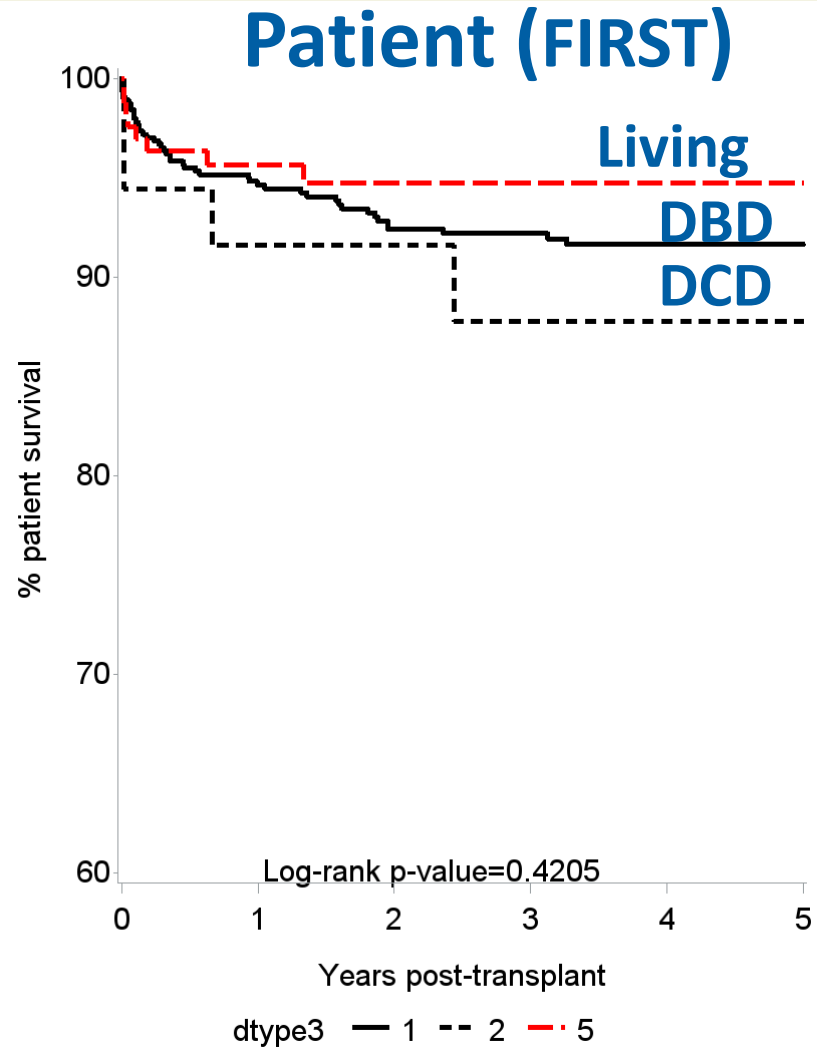


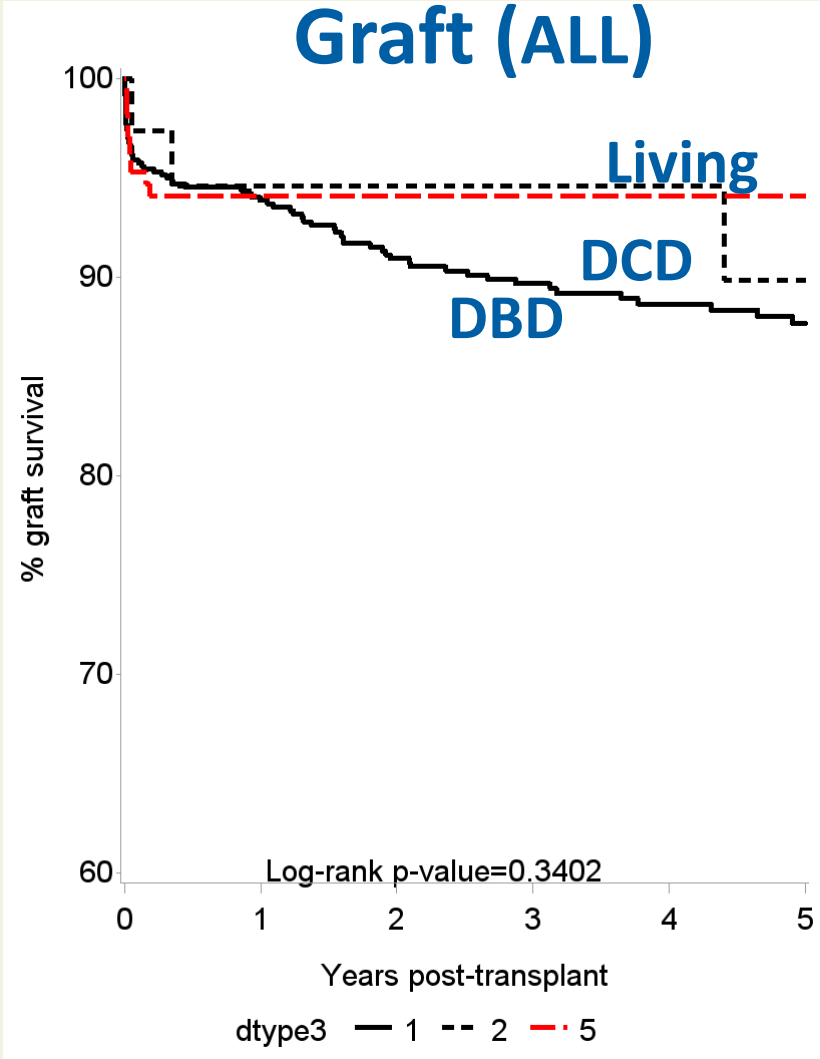


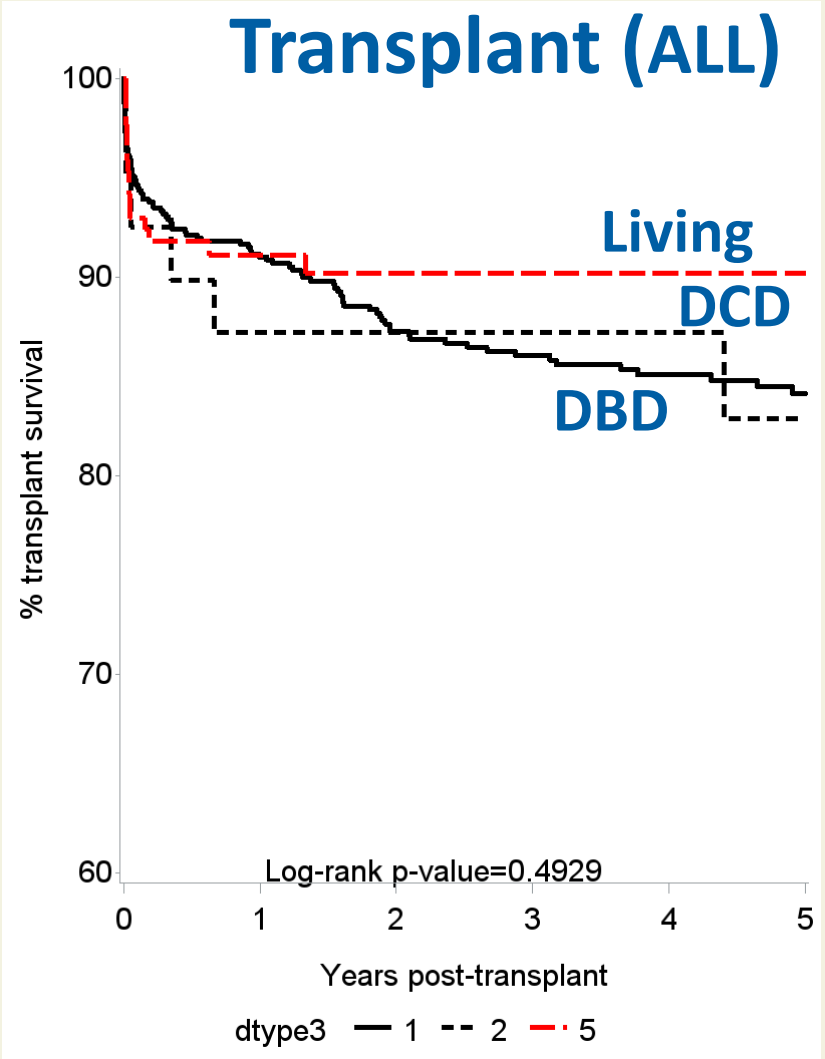
Caring Expert Quality

5 year survival post-transplant - PAEDIATRIC

NHS Blood and Transplant







Caring Expert Quality

NHS
Blood and Transplant

Non directed altruistic donors

Non directed altruistic donors (N=15)

- 13 (87%) performed at Leeds, 1 (7%) at Kings and 1 (7%) at Birmingham
- 12 (80%) left lateral segment, 3 (20%) right lobes
- 13 (87%) elective, 2 (13%) super-urgent
- 13 paediatric (age range 0 to 12) and 2 adult recipients (41 and 71)
- 9 blood group identical and 6 compatible
- 8 recipients resident in North East and Yorkshire, 4 North West, 1 London and 1 Midlands
- Median (range) time on the elective list: 164 days (7, 586)

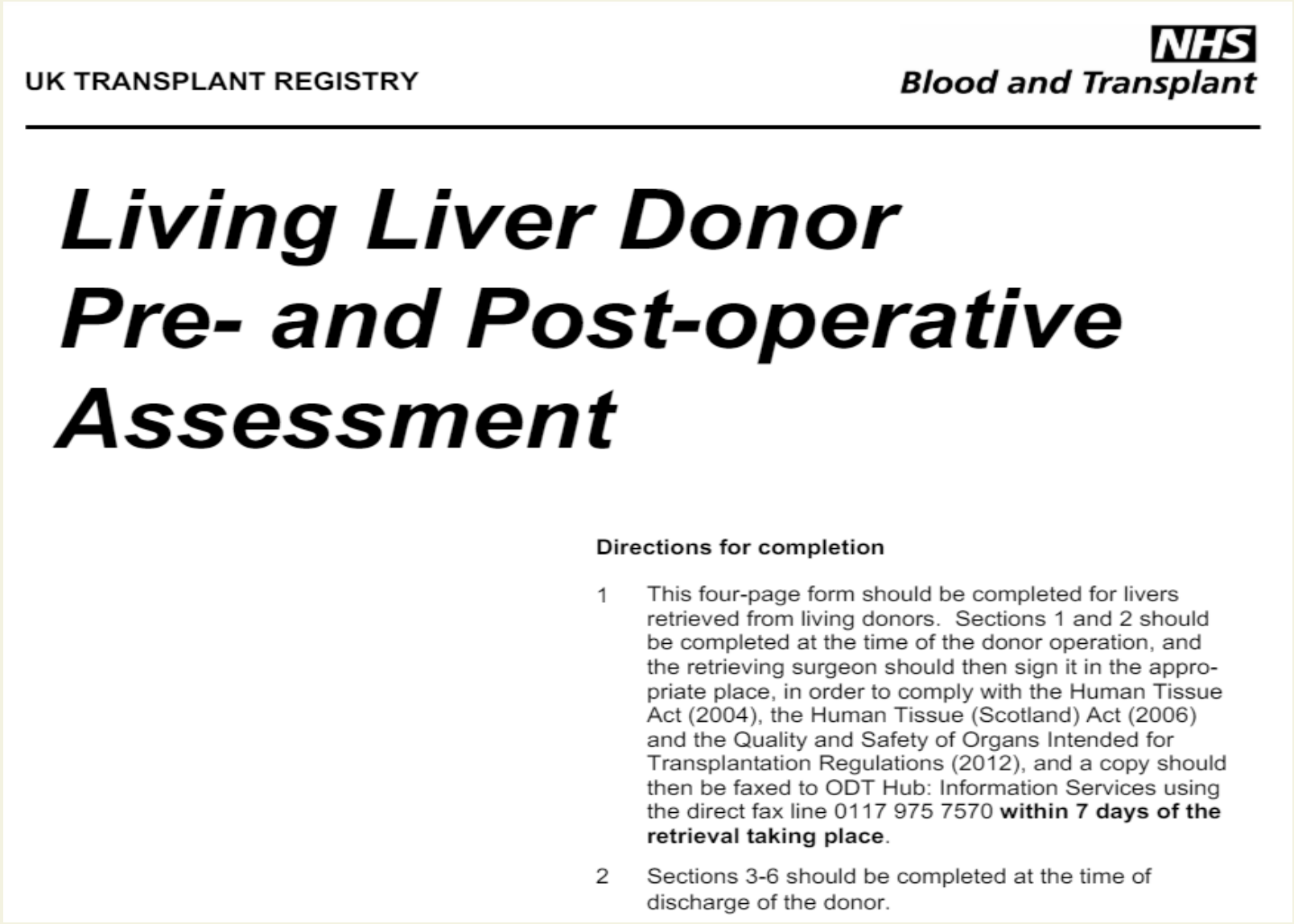
Non directed altruistic donors (N=15)

- 10 patients alive with a functioning graft
- 5 patients relisted
  - 2 patients retransplanted (both 6 days post-transplant)
  - 2 patients removed from the list and alive with a functioning graft
  - 1 recipient death at 488 days post-transplant

NHS
Blood and Transplant

Outcome of donors

Resources



UK TRANSPLANT REGISTRY

NHS Blood and Transplant

Living Liver Donor Pre- and Post-operative Assessment

Directions for completion

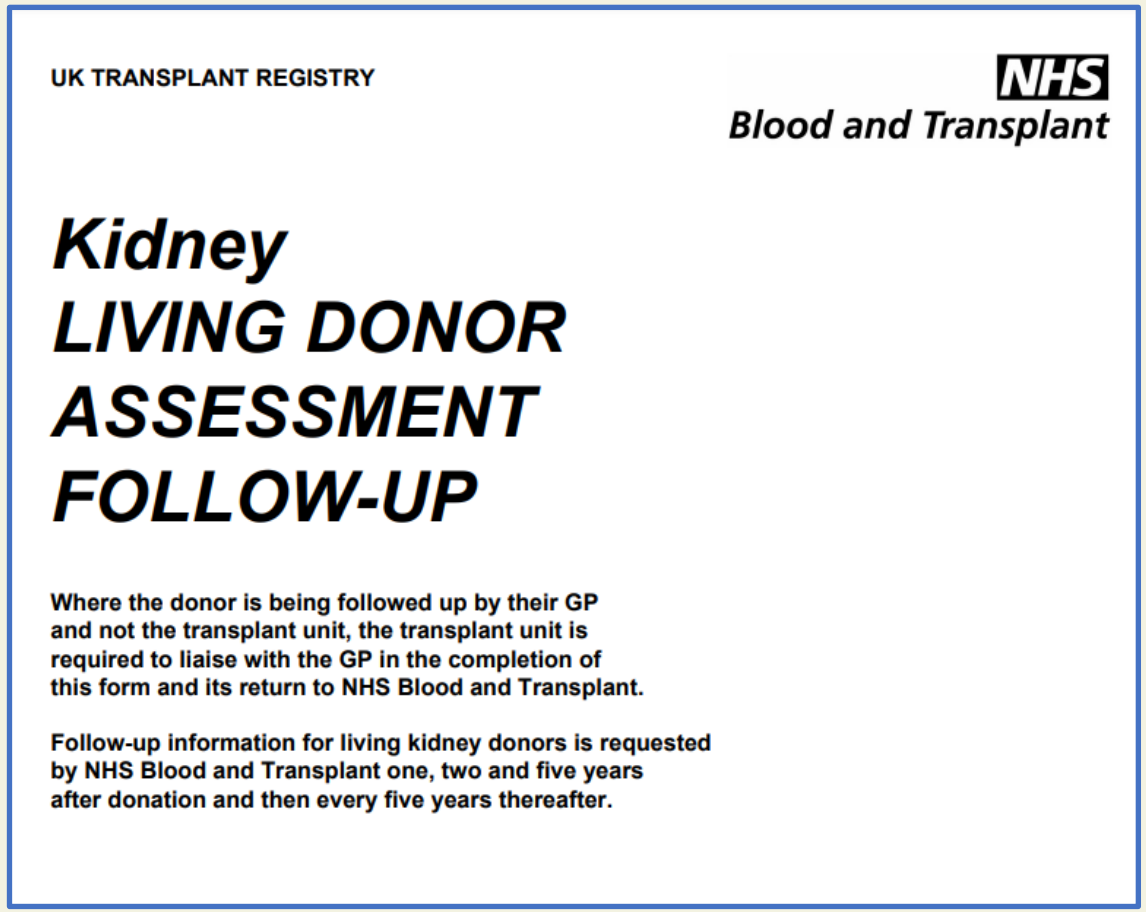
1 This four-page form should be completed for livers retrieved from living donors. Sections 1 and 2 should be completed at the time of the donor operation, and the retrieving surgeon should then sign it in the appropriate place, in order to comply with the Human Tissue Act (2004), the Human Tissue (Scotland) Act (2006) and the Quality and Safety of Organs Intended for Transplantation Regulations (2012), and a copy should then be faxed to ODT Hub: Information Services using the direct fax line 0117 975 7570 **within 7 days of the retrieval taking place**.

2 Sections 3-6 should be completed at the time of discharge of the donor.

NHSBT notified of transplant within 7 days of retrieval

Resources

- LD annual follow-up form



UK TRANSPLANT REGISTRY

NHS
Blood and Transplant

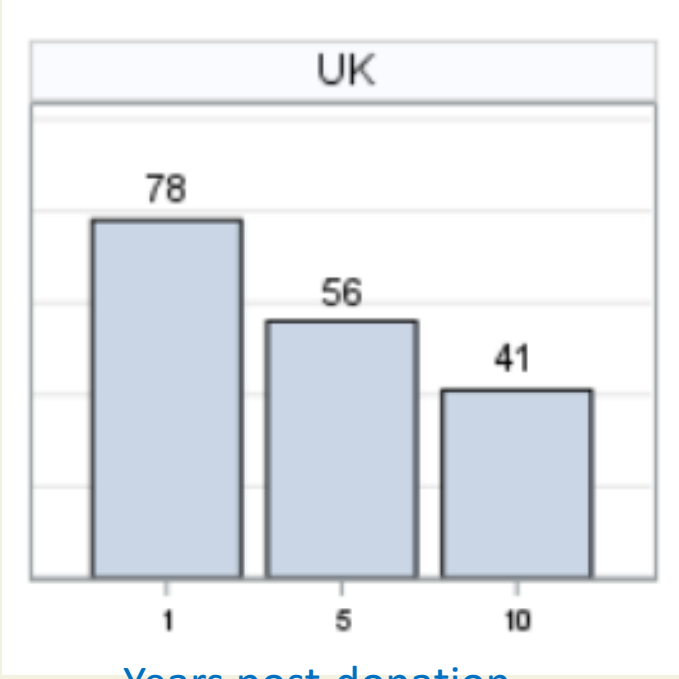
Kidney
LIVING DONOR
ASSESSMENT
FOLLOW-UP

Where the donor is being followed up by their GP and not the transplant unit, the transplant unit is required to liaise with the GP in the completion of this form and its return to NHS Blood and Transplant.

Follow-up information for living kidney donors is requested by NHS Blood and Transplant one, two and five years after donation and then every five years thereafter.

Includes mortality, clinical data

Follow-up
Return rates (%):



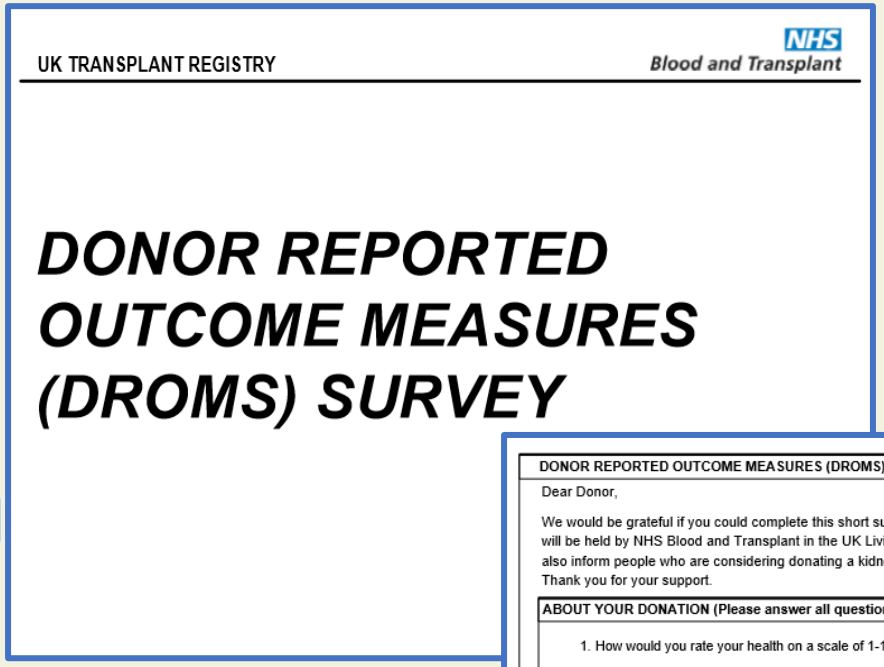
Resources

- LD annual follow-up form

- Linkage with NHS SPINE for mortality data

Resources

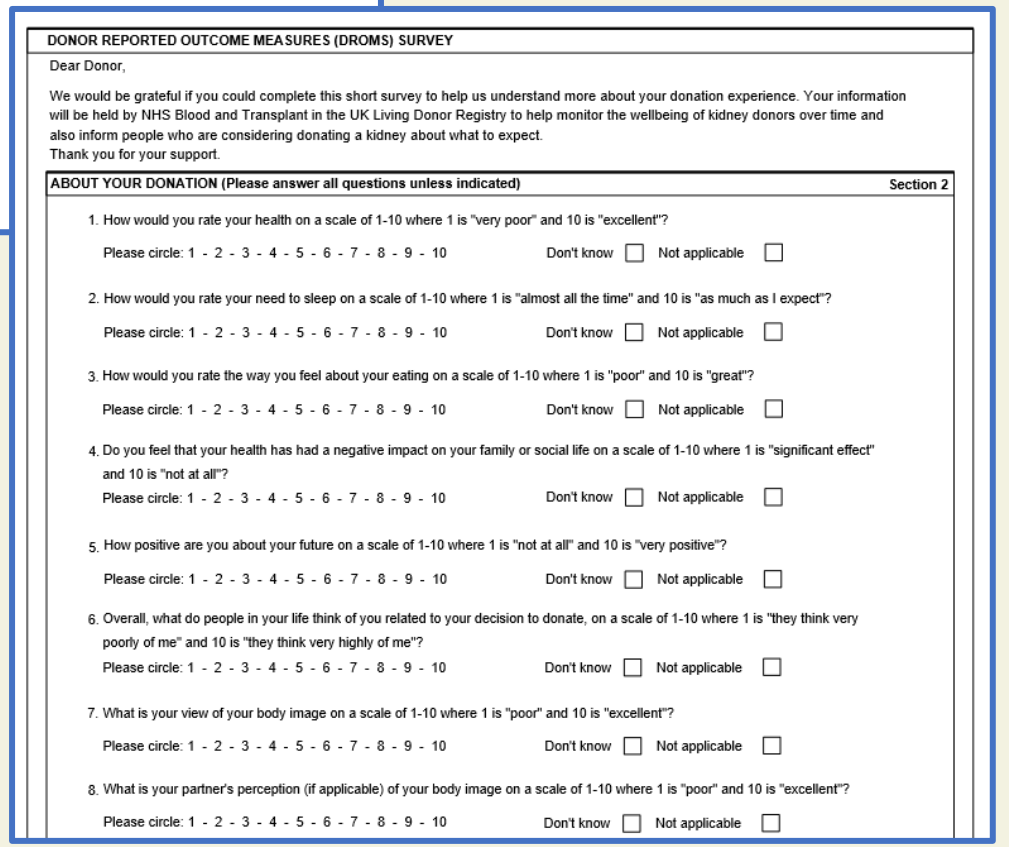
- LD annual follow-up form
- Linkage with NHS SPINE for mortal
- Donor Reported Outcome Measures - **DROMs**



UK TRANSPLANT REGISTRY

NHS Blood and Transplant

DONOR REPORTED OUTCOME MEASURES (DROMS) SURVEY



DONOR REPORTED OUTCOME MEASURES (DROMS) SURVEY

Dear Donor,

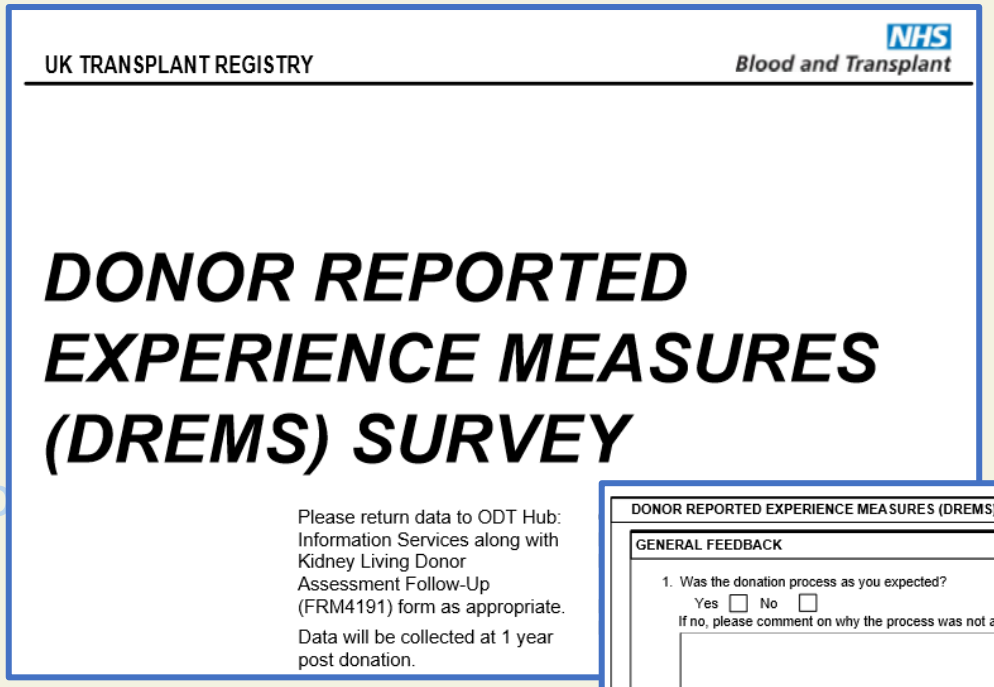
We would be grateful if you could complete this short survey to help us understand more about your donation experience. Your information will be held by NHS Blood and Transplant in the UK Living Donor Registry to help monitor the wellbeing of kidney donors over time and also inform people who are considering donating a kidney about what to expect.
Thank you for your support.

ABOUT YOUR DONATION (Please answer all questions unless indicated) Section 2

1. How would you rate your health on a scale of 1-10 where 1 is "very poor" and 10 is "excellent"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
2. How would you rate your need to sleep on a scale of 1-10 where 1 is "almost all the time" and 10 is "as much as I expect"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
3. How would you rate the way you feel about your eating on a scale of 1-10 where 1 is "poor" and 10 is "great"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
4. Do you feel that your health has had a negative impact on your family or social life on a scale of 1-10 where 1 is "significant effect" and 10 is "not at all"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
5. How positive are you about your future on a scale of 1-10 where 1 is "not at all" and 10 is "very positive"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
6. Overall, what do people in your life think of you related to your decision to donate, on a scale of 1-10 where 1 is "they think very poorly of me" and 10 is "they think very highly of me"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
7. What is your view of your body image on a scale of 1-10 where 1 is "poor" and 10 is "excellent"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐
8. What is your partner's perception (if applicable) of your body image on a scale of 1-10 where 1 is "poor" and 10 is "excellent"?
   Please circle: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Don't know ☐ Not applicable ☐

Resources

- LD annual follow-up form
- Linkage with NHS SPINE for mo
- Donor Reported Outcome Measures - DROMS
- Donor Reported Experience Measures - **DREMs**



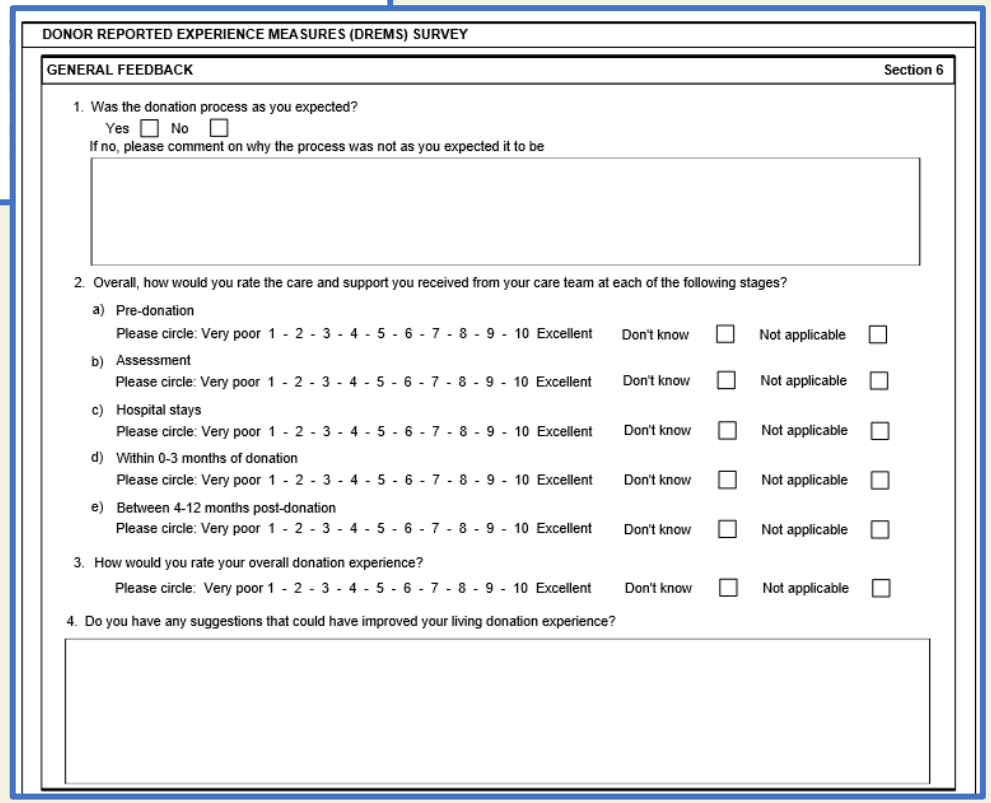
UK TRANSPLANT REGISTRY

NHS Blood and Transplant

DONOR REPORTED EXPERIENCE MEASURES (DREMS) SURVEY

Please return data to ODT Hub: Information Services along with Kidney Living Donor Assessment Follow-Up (FRM4191) form as appropriate.

Data will be collected at 1 year post donation.



DONOR REPORTED EXPERIENCE MEASURES (DREMS) SURVEY

GENERAL FEEDBACK — Section 6

1. Was the donation process as you expected?
   Yes ☐ No ☐
   If no, please comment on why the process was not as you expected it to be

2. Overall, how would you rate the care and support you received from your care team at each of the following stages?
   a) Pre-donation
      Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐
   b) Assessment
      Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐
   c) Hospital stays
      Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐
   d) Within 0-3 months of donation
      Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐
   e) Between 4-12 months post-donation
      Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐

3. How would you rate your overall donation experience?
   Please circle: Very poor 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 Excellent Don't know ☐ Not applicable ☐

4. Do you have any suggestions that could have improved your living donation experience?

Development of DROMs and DREMs

Forms developed by members of the donor safety and welfare workstream on behalf of the LDKT 2020 Strategy Implementation Group

	Donor Reported Outcome Measures (DROMs)	Donor Reported Experience Measures (DREMs)
Development by	LDKT Strategy Implementation Sub-group, Vassilios Papalois, Maria Thedosopoulou	LDKT Strategy Implementation Sub-group, Janine Hawkins, David Wellsted
Forms live	2019	2020
Collected at	Pre-donation, 1 and 5 years post-donation	1 year post-donation

DROMs and DREMs data collection

- Paper forms
- Rely on centres to give to donors to complete, with forms returned via the centres
- Completed forms entered on to a spreadsheet by OTDT Hub Information Services and linked to UK Transplant Registry by Statistics team
- Returns: DROMs at 1 year - 371 (17%)

  DREMs - 486 (23%)

Online Resources

Online resources

NHS
Blood and Transplant

ODT CLINICAL

Home | Deceased donation | Living donation | Retrieval | Transplantation | Statistics and reports

Home / Living donation / UK Living Donor Liver Transplantation Network

UK Living Donor Liver Transplantation Network

The UK Living Donor Liver Transplantation (LDLT) Network was established to support the expansion of the UK programme and equity of access to living donor liver transplantation for both adults and children, across all four UK countries.

The Network aims to engage all members of the multi-disciplinary teams, in transplant and non-transplant (referring) centres, to promote best practice in living donor liver transplantation.

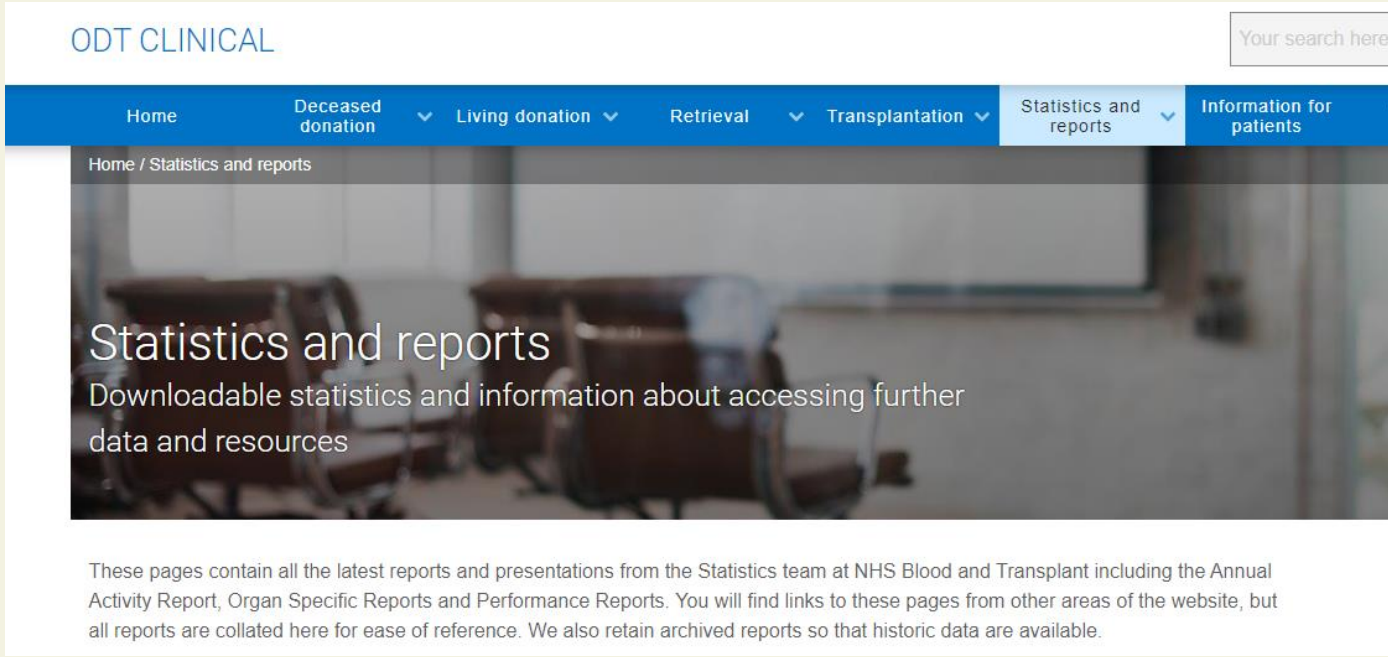
You can access the Terms of Reference (ToR) here (PDF 242KB)

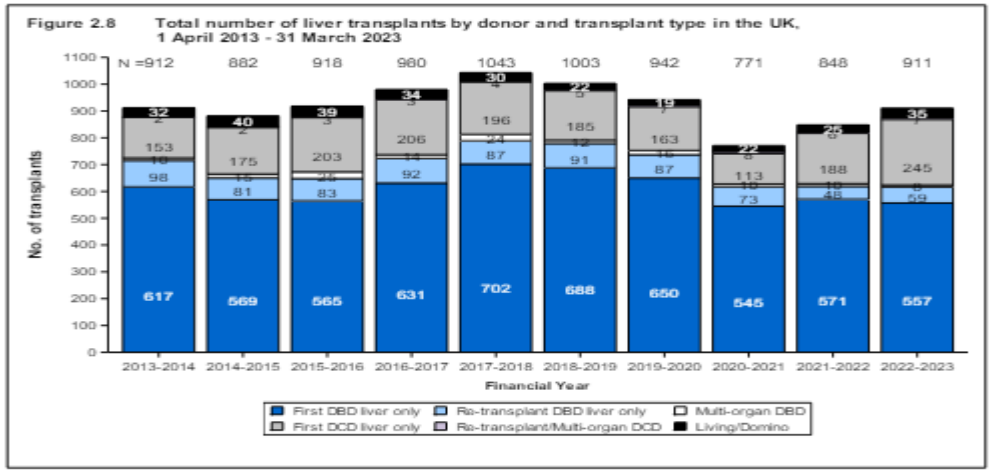
https://www.odt.nhs.uk/living-donation/uk-living-donor-liver-transplantation-network/

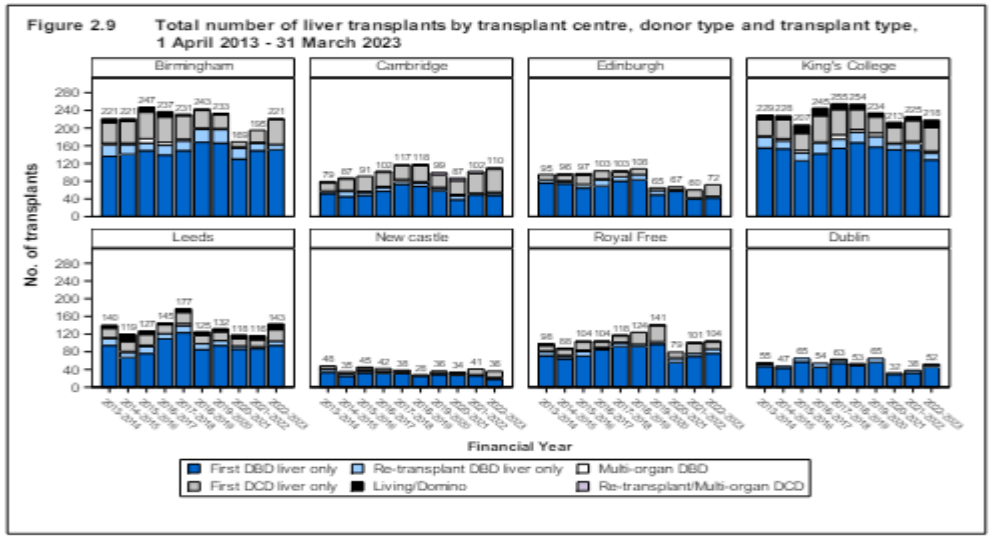
Caring Expert Quality

Online resources – Reports

NHS
Blood and Transplant







https://www.odt.nhs.uk/statistics-and-reports/

Caring Expert Quality

Acknowledgements

NHS Blood and Transplant

- Statistics and Clinical Research
  - Maria Jacobs
  - Suzie Phillips
  - Rhiannon Wallis
- OTDT Hub Information Services
  - Matt Secker
- Lisa Burnapp

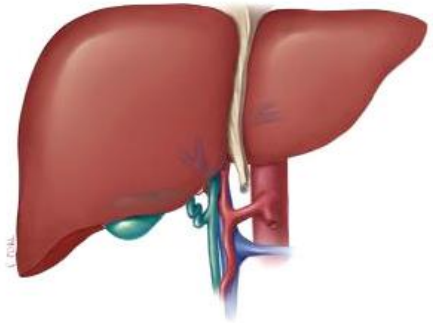
Transplant unit and other hospital staff, Specialist Nurses for Organ Donation, and OTDT HUB team for provision of data to the UK Transplant Registry

Yes I donate ORGAN DONATION

@NHSBT_Stats

www.odt.nhs.uk

Caring Expert Quality



NHS
Blood and Transplant

LDLT Project
Overview and Aims

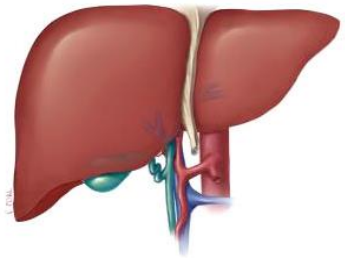
Lisa Burnapp

Associate Medical Director

Living Donation and Transplantation, NHSBT

LDLT Project Update, UK LDLT Network meeting, Leeds May 2024

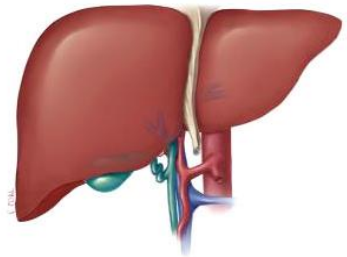
Aims – April 2022



Increase opportunity and choice for patients waiting for a liver transplant by

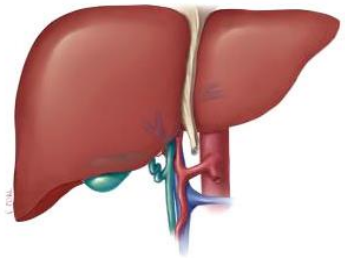
- Expanding the adult-to-adult LDLT programme UK-wide
- Supporting existing paediatric LDLT programmes
- Developing educational resources for living donors, recipients and healthcare professionals

Project Board –Past and Present



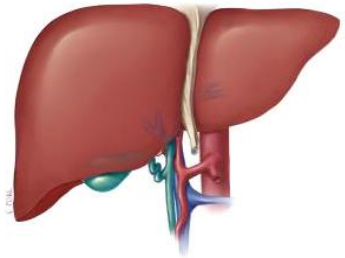
Lisa Burnapp (Chair)	Associate Medical Director, Living Donation and Transplantation
Derek Manas	Medical Director, OTDT NHSBT
Varuna Aluvihare	Consultant Hepatologist, King's College Hospital
Joshua Bell	Consultant Radiologist, Leeds
Sarah Matthew	Lay Representative
Katie McGoohan	Advanced Nurse Practitioner, Liver Transplant Services, Leeds
Raj Prasad	Consultant HPB Surgeon, Leeds
Karen Quinn/Emma Billingham	UK Commissioning and Service Development, NHSBT
Douglas Thorburn	Consultant Hepatologist, Chair of LAG, Royal Free Hospital
Sarah Watson	Specialised Commissioning, NHSE
Julie Whitney	Head of Service Delivery - ODT Hub
Vivek Upasani	Consultant HPB Surgeon, Leeds
Peter Lodge	Consultant HPB Surgeon, Leeds
Andrew Madden	Lay Representative

Workstreams- April 2022



1. Operational model, workforce resilience and sustainability
   - Adult and paediatric LDLT
2. Indications for LDLT, assessment and follow-up
   - Recipient and donor
3. Educational resources
   - Recipient, donor, professional
4. Commissioning
   - Service specification to be drafted once workstreams 1 & 2 report

2022/2023- Adult-Adult LDLT



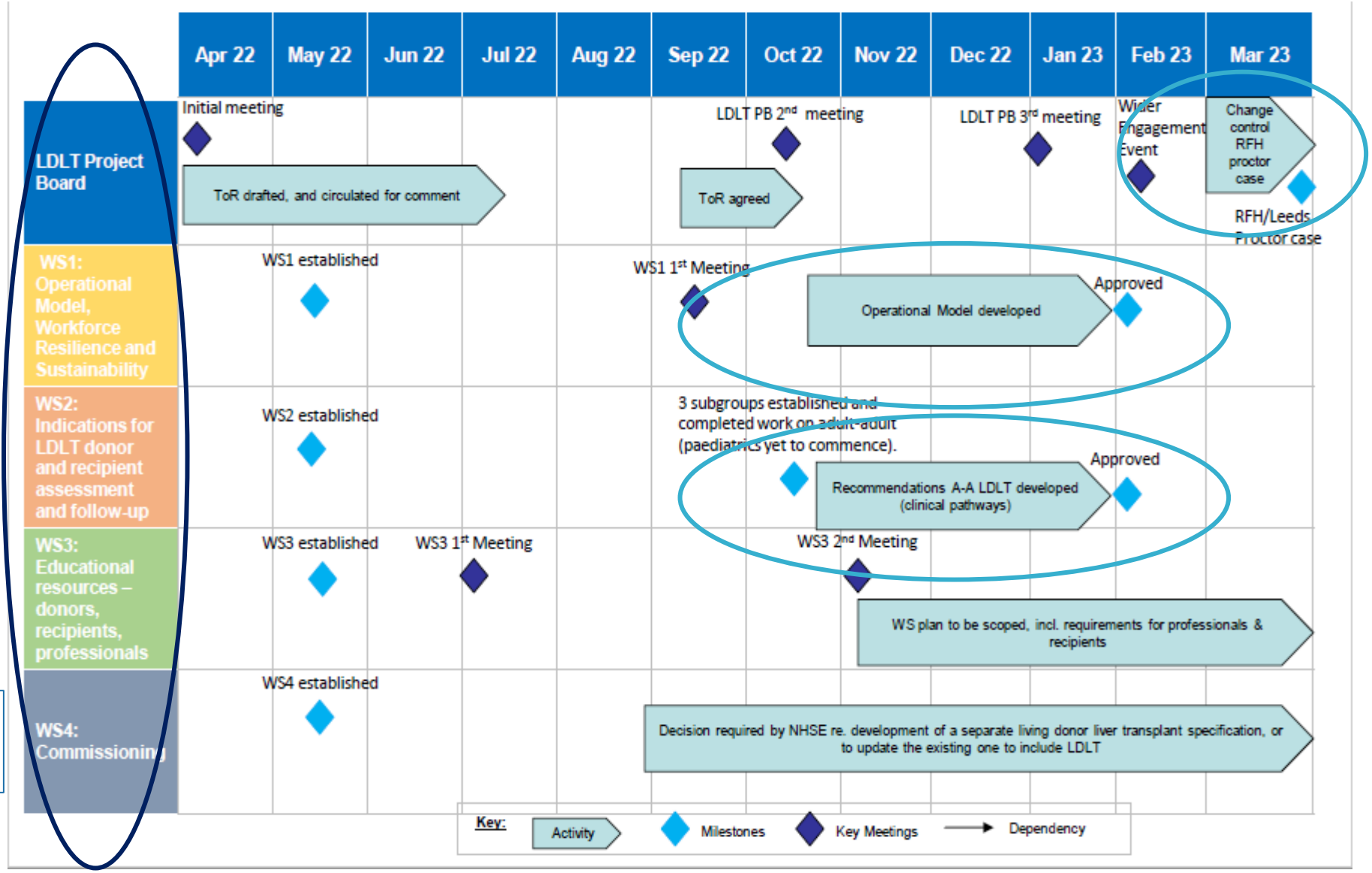
The Board

Operational Model

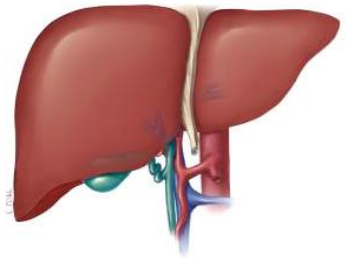
Clinical Indications

Educational Resources

Commissioning Aspects



Critical to Success



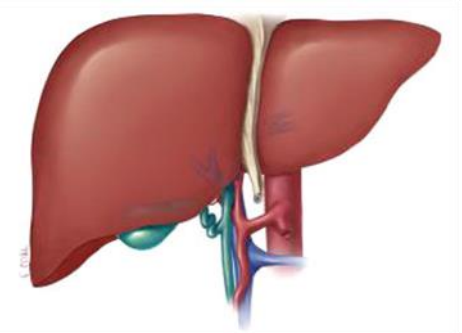
Engagement from clinical teams and key stakeholders

Engagement Event- February 2023

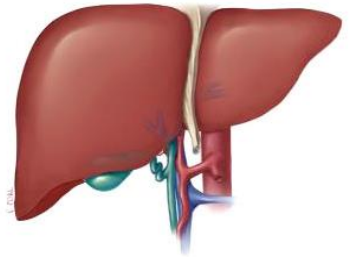
1. Is this the right model?
2. Is this the right time?
3. Will this improve equity of access to LDLT?
4. Will this help meet the shortfall in donor numbers?
5. Will it support or detract from the overall LT programme?
6. Is this feasible in your local team?
7. Is there appetite to do this in your local team?
8. Should the minimal listing criteria be the same for DD and LD?

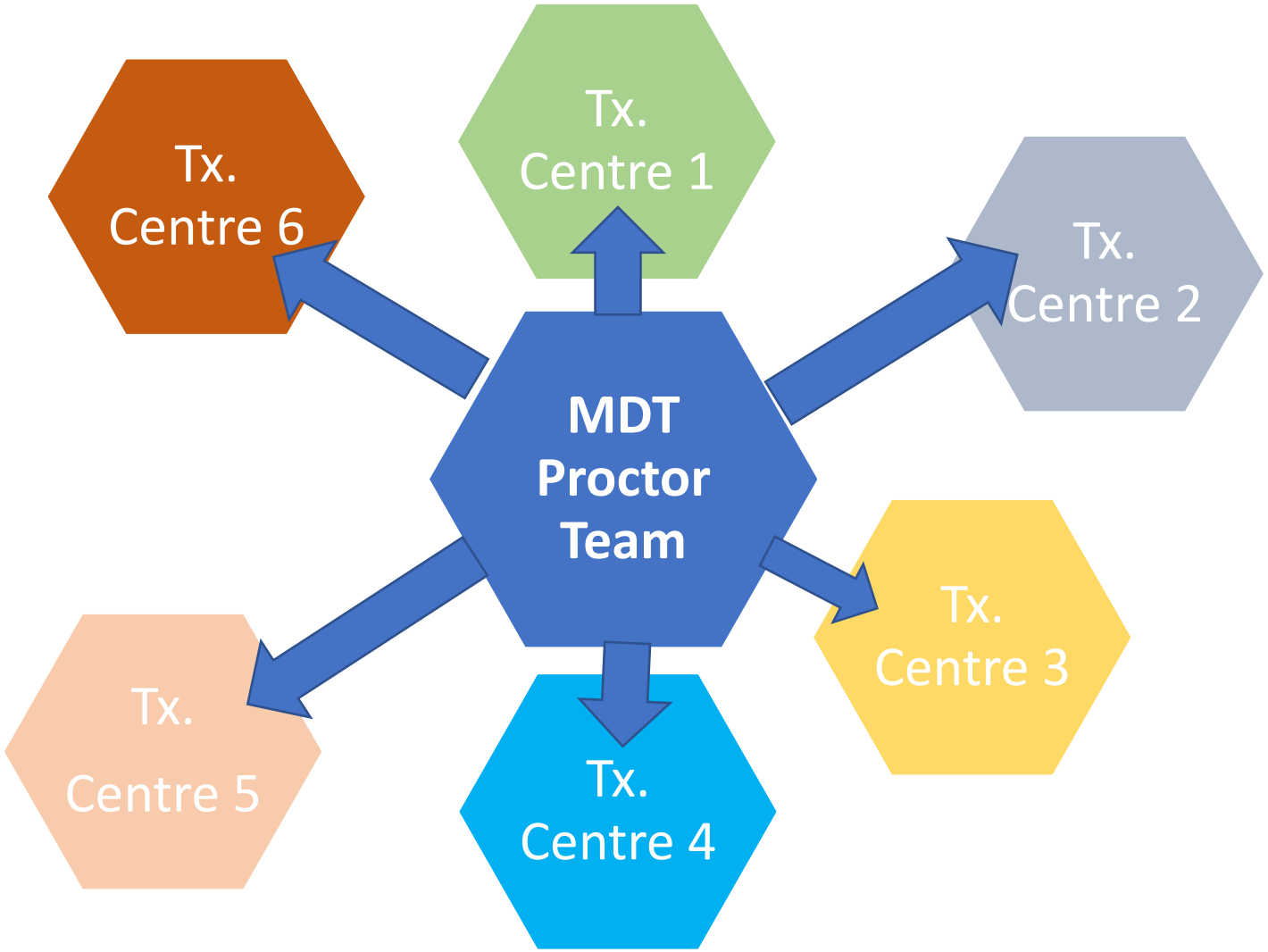
https://www.odt.nhs.uk/living-donation/living-donor-liver-transplantation/

Agreed Operational Model Adult-to-Adult LDLT

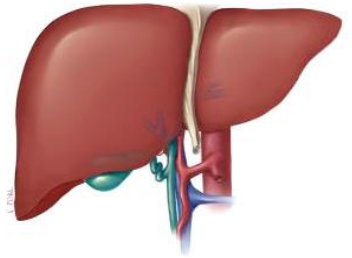


Proctoring Scheme





MDT Proctor Team



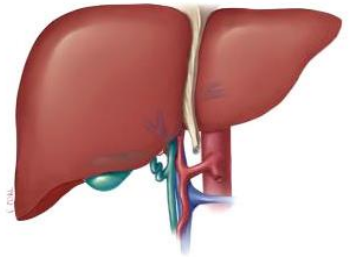
WHO?

- Senior donor surgeon
- Senior recipient surgeon
- Donor advocate physician
- Living donor coordinator
- Consultant radiologist
- Consultant anaesthetist
- Alternates for flexibility

WHAT?

- Oversight for donor and recipient clinical pathways
- Mentor donor and recipient surgery
- Share best practice/transfer knowledge and expertise to create local Tx. Centre self-sufficiency
- Has ‘go/no go’ responsibility

MDT Proctor Team



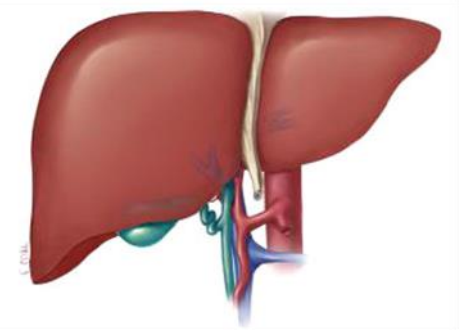
HOW?

- Work to standard protocols
- Work with centres who want to engage to identify and meet their needs
- Perform surgery in-centre with local surgeons

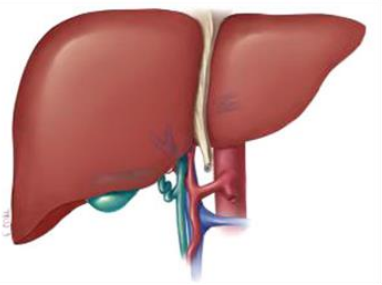
CONSIDERATIONS

- **Expected engagement** from all centres
- **Staffing and remuneration** for proctor team and back fill
- **Timeframes for delivery** in all centres that wish to engage and have the infrastructure
- **Clinical Governance** Monitoring outcomes and experience i.e.; donors, recipients, clinical teams, proctoring team)

Indications and Clinical Pathways for Adult-to-Adult LDLT



Clinical Recommendations



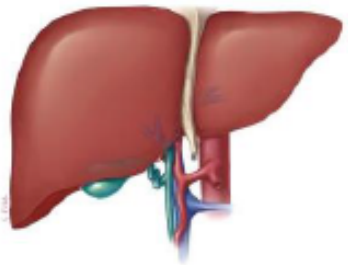
- **Donor selection**
  - Increase donor age for consideration- up to 60 years, case-by-case
  - Right lobe for non-directed altruistic donors
  - Exclude extended criteria donors (e.g.; size of graft GRWR<0.8, BMI > 30, anatomical complexity)
  - Access to radiology is key; volumetry has a learning curve
- **Recipient selection**
  - Start with chronic liver disease (CLD)
  - Include new cancer indications (but clear that they are service evaluations) and re-transplantation
  - Exclude acute liver failure and acute on chronic liver failure (ACLF) initially
- **Education**
  - Patients and families informed that the A-A LDLT programme is essential to bridge the gap between supply and demand

Engagement Event- February 2023

1. Is this the right model? **Yes**
2. Is this the right time? **Yes**
3. Will this improve equity of access to LDLT? **Yes**
4. Will this help meet the shortfall in donor numbers? **Yes**
5. Will it support or detract from the overall LT programme? **No**
6. Is this feasible in your local team? **Yes**
7. Is there appetite to do this in your local team? **Yes**
8. Should the minimal listing criteria be the same for DD and LD? **Yes**

https://www.odt.nhs.uk/living-donation/living-donor-liver-transplantation/

Patient Engagement: Survey (n=201)*



1. Do you support the development of a living donor living transplant programme in the UK?
   - 99% Yes
2. Would the option of receiving a living donor liver transplant be something that you personally would want to consider if you needed a transplant?
   - 95% Yes
3. If you were to think about the option of living donor liver transplant what would be the most important considerations for you?
   - Outcomes- donor, recipient and transplant
   - Education, opportunity to discuss
4. Any other comments you wish to make?

*https://britishlivertrust.org.uk/nhs-blood-and-transplant-are-seeking-the-views-of-patients-on-living-donor-liver-transplantation/

Patient Engagement: Focus Groups **

- ***All patients*** *and* ***family members*** *were* ***pro living donation***

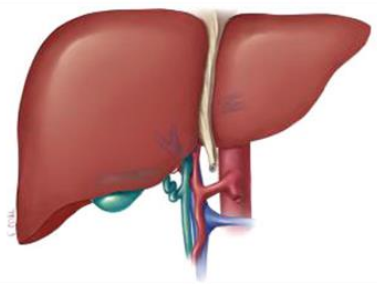
- ***All patients*** *had considered or* ***would consider living donation***
  - ***None willing to allow*** *their family member to donate to them*
  - ***Easier to go through*** *the operation knowing it was* ***a stranger, already deceased***
  - ***Biggest barrier*** *was concern over the* ***risks to the donor***

- *One person assessed for LDLT but withdrew at a late stage*
  - ***'Couldn't live with themselves post-transplant if their family member didn't make it'***

- ***Everyone: if their child needed a transplant****, they would* ***donate in a heartbeat***

**Focus Group Insights

Business Case – April 2023



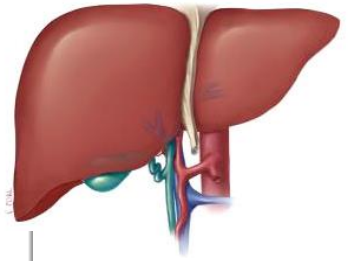
- **NHS England** **£150K (bid £3.9K over 3 years)***
- **Scotland** **£10.3K p.a. (for 3 years- total £30.9K)***

Financial Model	Deliverable	2023/24	2024/25	2025/26	
	Proctored Cases				
£103K/yr. for 3 years	No. of A-A LDLT Txs.*	12	24	30	**Total 66**
£150k/yr. for 1 year	No. of A-A LDLT Txs.*	7	14	20	**Total 41**

*Baseline 2022/23 = 8 (Group 1) Txs.

*awarded November 2023; NI & Wales approached April 2024

2023/2024- Adult-to Adult LDLT



The Board

Operational Model

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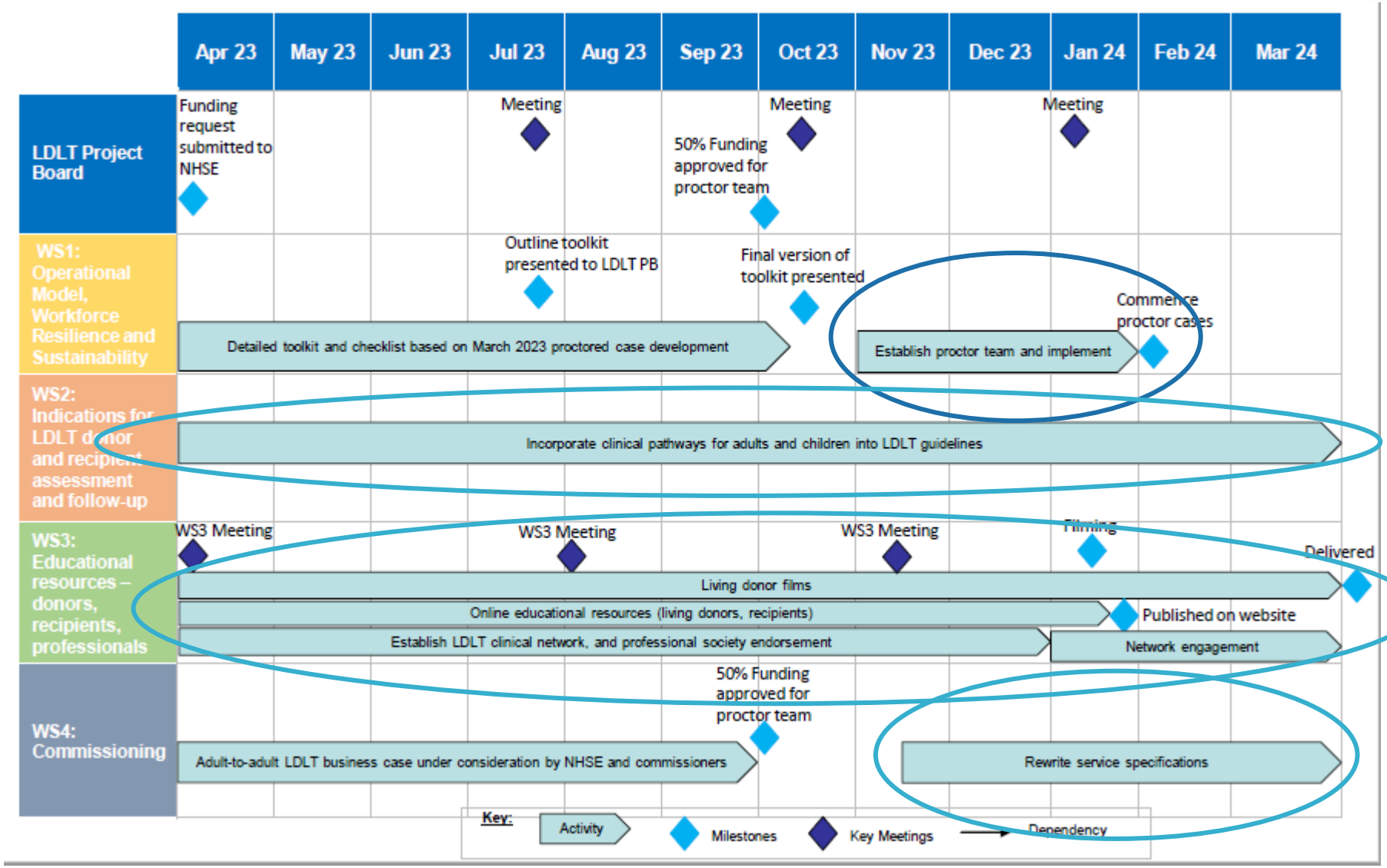
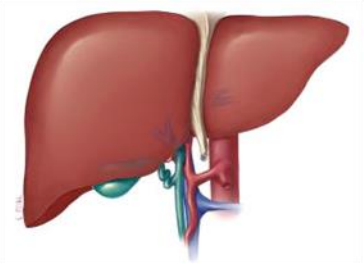


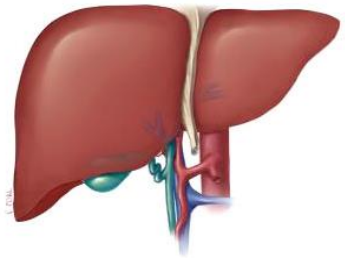
2024/25- The Next Era



	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25
LDLT Project Board	¼ Meetings	Launch PT A-A LDLT	Project oversight; monitor PT and impact									
WS 1: Operational Model	Referral pathways – Tx. & non-Tx. centres		Referral pathways – NDAD									
WS 2: Paediatric LDLT		Establish WS	TBC with WS Leads									
WS 3: Data and Monitoring		Establish WS	TBC with WS Leads									
WS 4: Commissioning	NI & Wales approached re PT funding		Discovery to inform service future service specification									

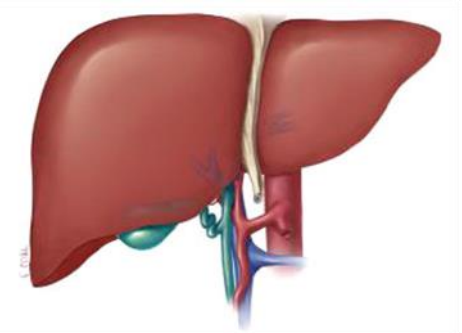
Meetings ◆ Milestones ◆ **Work in progress** **Work plan TBC**

Proctor Team- May 2024

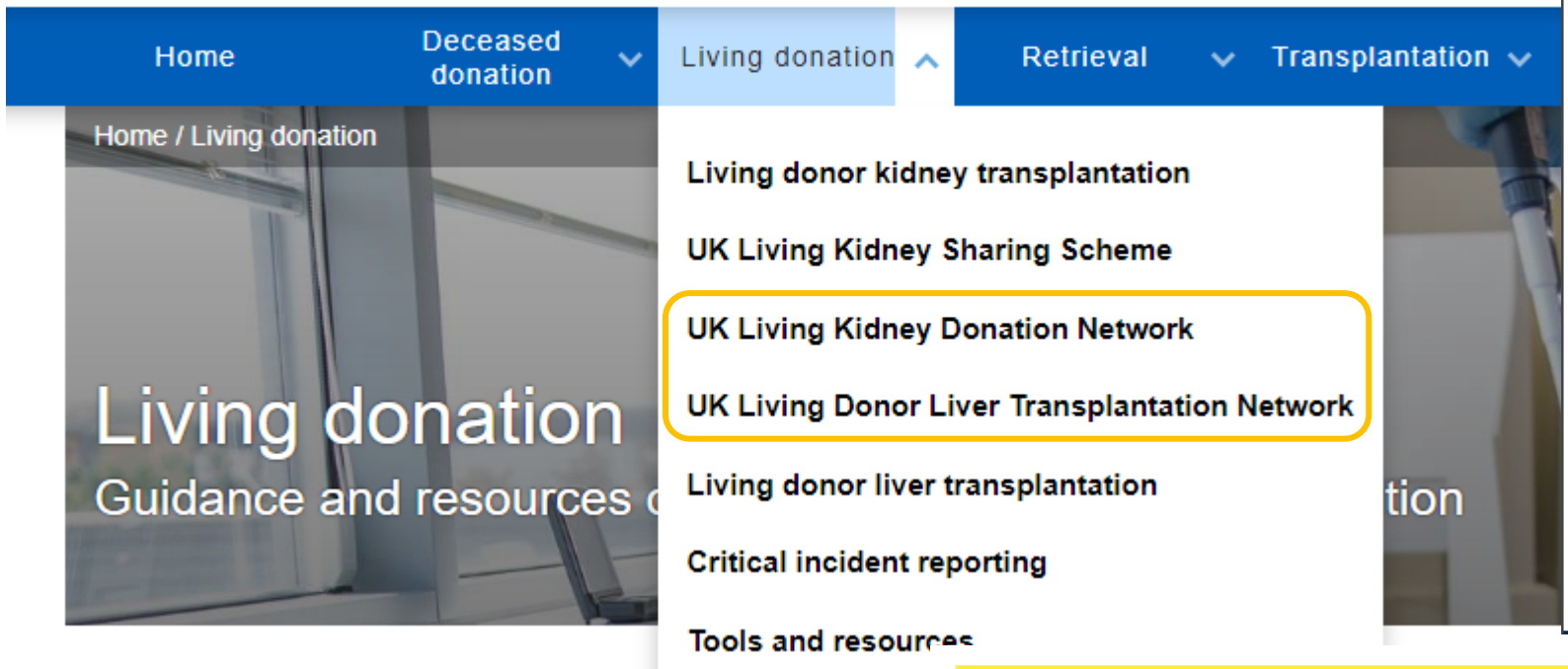


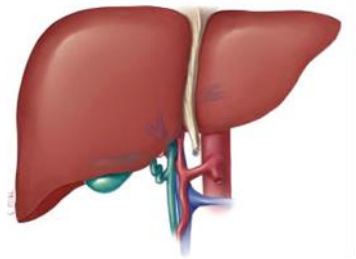
Name	Role and Affiliation
Peter Lodge	Consultant Surgeon, Leeds
Vivek Upasani	Consultant Surgeon, Leeds
Dhakshina Vijayanand	Consultant Surgeon, Leeds
Parthi Srinivasan	Consultant Surgeon, King’s
Ramu Chimakurthi	Consultant Hepatologist, Leeds
Jayne Dillon	Consultant Hepatologist, Leeds
Katie McGoohan	Advanced Nurse Practitioner, Leeds
Julie Jeffery	Advanced Clinical Practitioner, Leeds
Joshua Bell	Consultant Radiologist
Krishna Rao-Prasad	Consultant Anaesthetist

Resources



ODT CLINICAL www.odt.nhs.uk





Update Coming Soon

https://bts.org.uk/guidelines-standards/

UK Living Donor Liver Transplantation Network

The UK Living Donor Liver Transplantation (LDLT) Network was established to support the expansion of the UK programme and equity of access to living donor liver transplantation for both adults and children, across all four UK countries.

The Network aims to engage all members of the multi-disciplinary teams, in transplant and non-transplant (referring) centres, to promote best practice in living donor liver transplantation.

You can access the Terms of Reference (ToR) here (PDF 242KB)

Network meetings

May 2024

Papers

- UK LDLT network meeting programme 21 May 2024 (PDF 365KB)

Living Donor Liver Transplantation (LDLT) Proctor Team

This multi-disciplinary Proctor Team has been established under the auspices of the LDLT Project to facilitate the expansion of adult-to-adult living donor liver transplantation across the UK. This is a time-limited initiative, endorsed by the clinical community and patient representatives. It is funded by commissioners, to improve access to LDLT for suitable recipients and their living donors.

The Proctor Team will work with any existing liver transplant centre that wishes to expand their adult-to-adult LDLT programme, providing individualised support for the local team to become self-sufficient in all aspects of the LDLT pathway, including donor and recipient selection, preparation, surgery and follow-up.

The following resources have been developed to support the Proctor Team and local transplant teams to deliver this initiative. Latest versions and additional documents will be added to this concertina as they become available.

- LDLT Proctor Team - Terms of Reference (ToR) (PDF 120KB)
- LDLT Proctor Team Responsibilities (PDF 409KB)

https://www.organdonation.nhs.uk/become-a-living-donor/donating-part-of-your-liver/

Donating part of your liver

Cael gwybodaeth yn y Gymraeg

Living donor liver transplantation has been successfully performed in the UK since 1995.

A liver transplant operation is life saving surgery for patients with end stage liver disease. It is also performed for some patients with primary liver cancer and children with metabolic diseases (affecting the chemical processes within the body).

How living organ donors change lives

Read about people like Anaya, whose young life was saved when a stranger came forward as a living donor.

» See how you could help

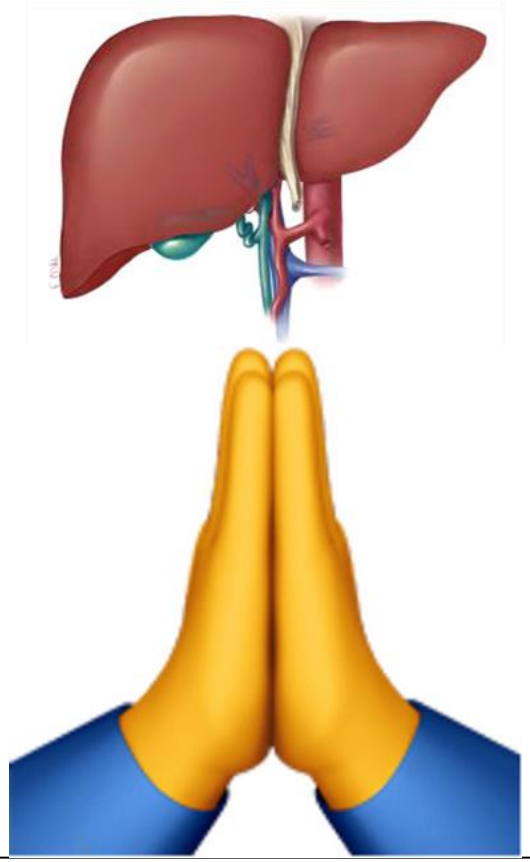
What is living liver donation?

Donating a liver lobe to a child

Acknowledgements

NHS Blood and Transplant

- Project Board and workstream leads
- Working group members
- Liver Advisory Group
- Professional societies
- Patient organisations
  - British Liver Trust; UK Liver Patient Alliance
- NHSBT Clinical, Commissioning and Hub Ops.
- NHS England and Scottish Commissioners
  - Sarah Watson; Roseanne McDonald



LDLT project overview, aims and objectives - Operational model in practice: Royal Free proctored case

- Lisa Burnapp
- Joerg-Matthias Pollok

Donor – Recipient Pair

- MM (Mother) (53)
- CM (Son) 26
  - Around Covid transfer to RFL waiting list from another centre
  - With already long waiting time
  - 07/2020 listed in transferring centre
  - 09/2021 transferred to RFL
  - 10/2022 listed as variant
  - 10/2022 living donor work up started
  - 02/2023 transplanted with living donor

LDLT at Royal Free

- Up until Covid RFL had an active low volume adult LDLT programme
  - LDLT experienced senior transplant surgeon left the trust
  - Covid paused LDLT activities

- Surgical expertise
- On top of the surgical colleagues involved with the RFL low volume programme 2 surgeons with an extensive LDLT experience from high volume programmes had joined the trust
- Drive to re-start LDLT

Steps undertaken

- Following internal discussions on how to re-start the LDLT programme
- approach NHSBT
- approach surgical team in Leeds for support/proctorship
- Leading to a structured process of developing a national proctorship model through NHSBT
- NHSBT sponsored LDLT national engagement meeting in London at RFL 10th February 2023

NHS Blood and Transplant

Living Donor Liver Transplantation (LDLT)

Wider Engagement Event

Friday 10th February 2023

UCL Institute of Immunity & Transplantation
Pears Building, Rowland Hill Street, London, NW3 2PP

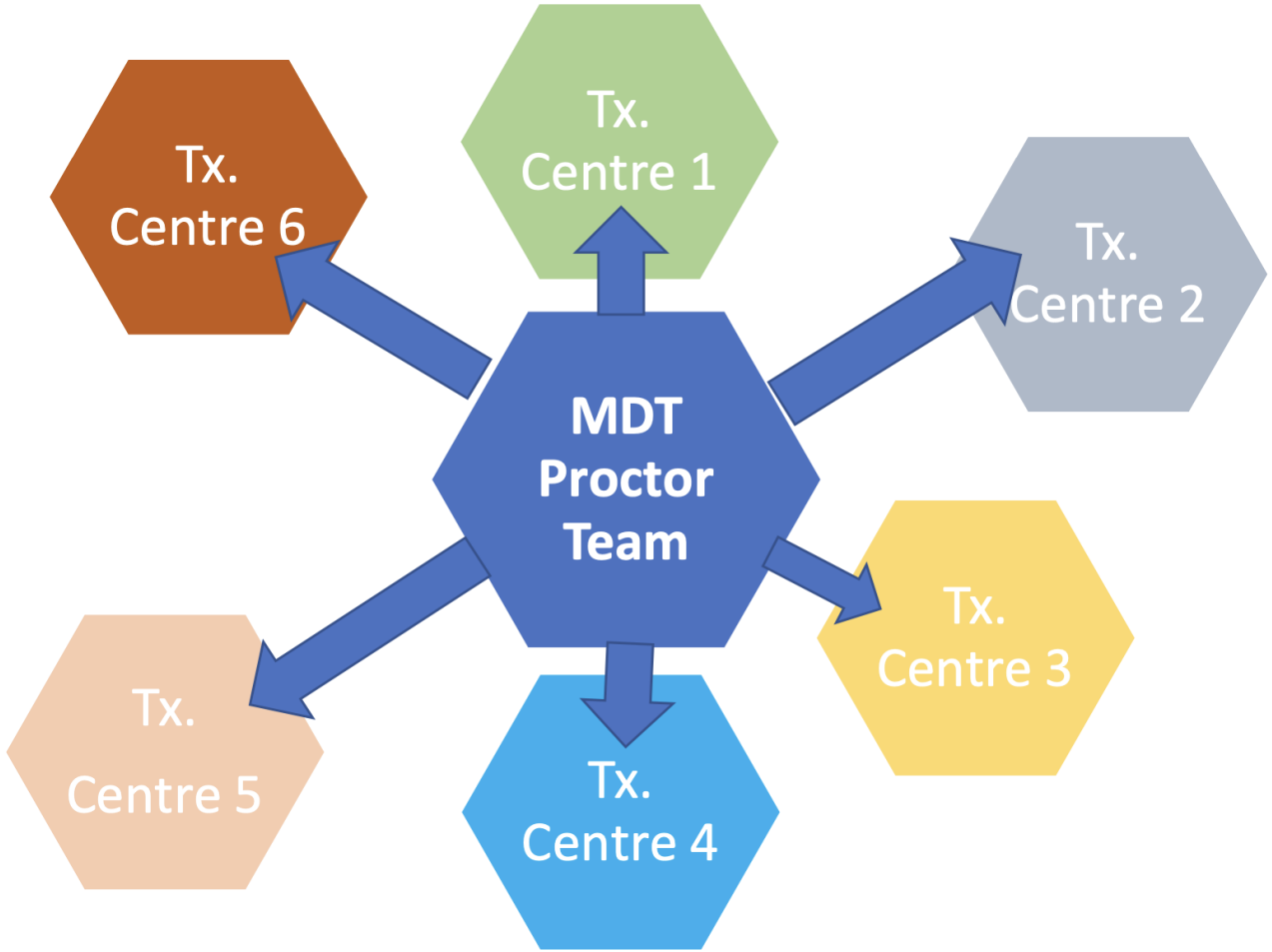
PROGRAMME

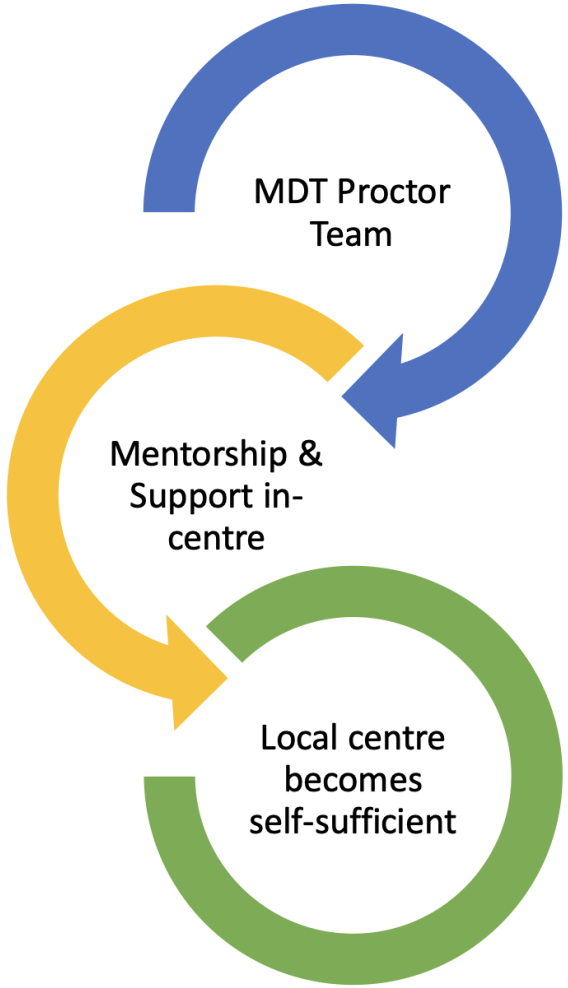
TIME	SESSION/TOPICS	SPEAKERS
09:30-10:00	**ARRIVAL TEA AND COFFEE (Outside seminar room)**	
	Overview: LDLT in Context	**Chair: Lisa Burnapp**
10:00-10:15 10:15-10:30 10:30-10:45 10:45-11:00	Welcome and purpose of meeting Setting the scene and solutions Strategic context and Organ Utilisation Group Audience Q&A	Derek Manas Doug Thorburn Derek Manas
	LDLT Project: Background and Recommendations	**Chair: Doug Thorburn**
11:00-11:15 11:15-11:35 11:35-12:30	International and UK LDLT data LDLT Project Board and workstream recommendations Breakout session: Discussion about recommendations	Raj Prasad Lisa Burnapp All
12:30-13:00	**LUNCH (Outside seminar room)**	
	Discussion to Endorse Recommendations	**Chair: Derek Manas**
13:00-14:15	Feedback from breakout session	All
14:15-14:30	**REFRESHMENT BREAK (Outside seminar room)**	
	Academic Session: What is the risk appetite?	**Chairs: Raj Prasad Nigel Heaton**
14:30-16:00	Smaller size; left lobe grafts in adults Complex donor anatomy: what's acceptable? Moving towards minimally invasive techniques in living donation Enhanced Recovery After LDLT Surgery Speaker and Audience Q&A	Nigel Heaton, King's College, London Vivek Upasani, Leeds Steve White, Newcastle Nick Schofield, Royal Free, London
16:00-16:30	Next Steps (12-month plan) Meeting Close	Derek Manas Lisa Burnapp

Further steps

- Following internal discussions on how to re-start the LDLT programme
- approach NHSBT
- approach surgical team in Leeds for proctorship
- Leading to a structured process of developing a national proctorship model through NHSBT
- NHSBT sponsored LDLT national engagement meeting in London at RFL 10th February 2023
- Engagement in developing LDLT Toolkit through Workstream 1 on the basis of the Leeds-RFL proctorship process

Plan B- Proctoring Scheme





INF1729/1 – Adult-to-Adult Living Donor Liver Transplant (LDLT): Local & Proctor Team Responsibilities

NHS Blood and Transplant
Effective date:29/04/2024

This document describes the roles and responsibilities that sit with the delivery of adult-to-adult living donor liver transplantation (LDLT) within the new UK programme based on a proctor model. All the practice recommendations here are aligned with existing guidance from the British Association for the Study of the Liver (BASL)/British Transplantation Society (BTS)/British Liver Transplant Group (BLTG) in BASL on adult liver transplantation (LT) and in particular LDLT.

Relevant groups referred to:

1. Local LT multi-disciplinary team (MDT)
2. Local LDLT MDT
3. Local Trust clinical governance
4. Local Executive
5. Proctor LDLT MDT
6. Local orthotopic liver transplant (OLT) MDT

STEP - 1: Approval within the Local centre		
	Approved local recipient protocol according to BTS/BASL UK LDLT Guidelines https://bts.org.uk/guidelines-standards/	Local LT MDT, Local LDLT MDT, Local Trust Clinical Governance
	Approval & Development of Local LDLT donor protocol according to BTS/BASL LT Guidance	Local LT MDT & Proctor LDLT MDT, Local Trust Clinical Governance
	Ensure local Medical Director governance approval secured for LDLT with proctor team via New Interventional Procedures process including sign off of: Disaster Plan & Communication strategy	Local LT & LDLT MDT & Local Trust Executive
STEP 0: Listing of potential recipient and identification of suitability for LDLT		
	Work up according to local assessment protocol & BTS/BASL LT Guidance	Local LT MDT
	Meets approved listing criteria for OLT	Local LT MDT
	Approval of LT MDT at listing centre	Local LT MDT
	Verification of suitability for LDLT	Local LDLT MDT & Proctor LDLT MDT
STEP 1: Potential LD Screening (as per BTS/BASL UK LDLT Guidelines)		

Living Liver Donor Transplant Coordinator Assessment	Local LDLT MDT
Health Check Questionnaire + GP check	Local LDLT MDT
Donor Consent for LD Assessment	Local LDLT MDT
STEP 2: Potential LD Screening Bloods	
FBC, LFT, Coagulation profile, Renal profile, U&E	Local LDLT MDT
Pregnancy test	Local LDLT MDT
Serology Hepatitis B, C, HIV, HTLV	Local LDLT MDT
Group & Save	Local LDLT MDT
Consider Fibroscan and CAP for screening of steatosis – if clinically indicated	Local LDLT MDT & Proctor LDLT MDT
Chest X-Ray	Local LDLT MDT
Decision Point – Progress to Further LD Evaluation	**Local LDLT MDT**
STEP 3: Potential LD Further Blood testing	
Chemistry, Lipid profile, Tissue Typing	Local LDLT MDT
Immunoglobulin: IgA IgG IgM, ANA, ASM, AMA, (ANCA, ACE, Lupus Anti-coagulant)	Local LDLT MDT
Thyroid function tests: TSH, fT3, fT4	Local LDLT MDT
Iron Study: Transferrin, Ferritin, a-1-Antitrypsin, Caeruloplasmin	Local LDLT MDT
Coagulation factors V, VII and VIII, Protein S, Protein C, APCR APCRAPCRAPCR Additional virology: CMV, EBV, HSV	Local LDLT MDT
Depending on the recipient diagnosis- we would recommend genetic screening if deemed necessary	Local LDLT MDT
Pulmonary function test or HRCT	Local LDLT MDT
1° Hepatitis B vaccination (if applicable, as per centre policy)	Local LDLT MDT
Decision Point: Terminate or proceed LD assessment	**Local LDLT MDT & Proctor LDLT MDT**

STEP 4a: Potential LD Psychosocial Screening	
Donor and Recipient psychosocial assessment	Local LDLT MDT
Social worker assessment	Local LDLT MDT
STEP 4b: Decision Point – Progress to Further LD Evaluation	**Joint MDT Meeting: Local OLT MDT & Proctor LDLT MDT**
Notification to NHSBT	Proctor LDLT MDT
STEP 5: Potential LD Imaging	
CT Liver with Contrast (Multiphase living donor protocol) (Liver US prior to CT optional) Description of vascular anatomy Liver volumetry	Local LDLT MDT
MRCP **Description of bile duct anatomy**:	Local LDLT MDT
Steatosis assessment MR assessment is gold standard (PDFF or spectroscopy) CT LAI if MR unavailable Estimated steatosis:	Local LDLT MDT
2° Hepatitis B vaccination (if applicable, as per centre policy)	Local LDLT MDT
Local review of imaging	Local LDLT MDT
Joint MDT review of imaging and volumetry assessment	Local LDLT MDT & Proctor LDLT MDT
Decision point: Outcome **1. Terminate LD assessment** **2. Proceed +/- recording decision on additional evaluation** **- Liver biopsy**	**Local LDLT MDT & Proctor LDLT MDT**
STEP 6: Potential LD Medical Consultations	
Assessment by Donor Advocate Hepatologist	Local LDLT MDT

	Medical history, physical examination	
	Assessment by Donor Transplant Surgeon	Local LDLT MDT
	Assessment by Donor Consultant Anaesthetist	Local LDLT MDT
	Decision Point: Terminate or proceed LD assessment	**Local LDLT MDT & Proctor LDLT MDT**
STEP 7: Potential LD Enhanced assessment		
	Exercise Tolerance Test	Local LDLT MDT
	Echocardiography	Local LDLT MDT
	Living Liver Donor Coordinator review	Local LDLT MDT
	Informed consent for liver biopsy, if required	Local LDLT MDT
	Presented to the multidisciplinary team meeting	Local LDLT MDT & Proctor LDLT MDT
	Decision Point: Terminate or proceed LD assessment	**Local LDLT MDT & Proctor LDLT MDT**
STEP 8: Potential LD Invasive assessment		
	Imaging guided Liver biopsy (if indicated) with Hepatologist consultation	Local LDLT MDT
	Selected consultations – Cardiology, Pulmonology (if indicated)	Local LDLT MDT
	Gynaecology consultation (in Females, if applicable Pap smear, ultrasound of breasts	Local LDLT MDT
	3° Hepatitis B vaccination (if applicable, as per centre policy)	Local LDLT MDT
	Decision Point: Terminate or proceed LD assessment	**Local LDLT MDT & Proctor LDLT MDT**
STEP 9: Review and Approval by Donor Advocate Team		
	Donor Advocate Physician assessment	Local LDLT MDT
STEP 10: Local and Proctor Centre MDT Reviews		
	Presented to the local OLT MDT meeting: Final decision on graft selection	**Local LDLT MDT & Proctor LDLT MDT**
	Presented to the Proctor Centres MDT: Confirmation of decision on graft selection	**Local LDLT MDT & Proctor LDLT MDT**
Step 11: Independent assessor and HTA approval		

Approval of Independent Assessor and Human Tissue Authority	Local LDLT MDT
Step 12: Final Steps	
Presented to the multidisciplinary team meeting for final approval	**Local LT & LDLT MDT & Proctor LDLT MDT**
Operation Date Set	Local LDLT MDT & Proctor LDLT MDT
Notification to NHSBT	Proctor LDLT MDT
Consent to be obtained by Local Donor Transplant Surgeon	Local LDLT MDT
Step 13: Day of Surgery	
LDLT undertaken	Local LDLT MDT & Proctor LDLT MDT
Notification of NHSBT	Proctor LDLT MDT
Step 14: In patient stay	
Clinical reviews	Local LDLT MDT in liaison with Proctor LDLT MDT
Notification of NHSBT	Proctor LDLT MDT
Submission of paperwork to LDLT registry and HTA A and B forms	Local LDLT MDT

FINAL CHECKLIST FOR ADULT-TO-ADULT LDLT (A-A LDLT) TO BE SIGNED OFF BY MEDICAL DIRECTOR OTDT AND/OR DEPUTY

Requirement	Rationale	Provided By Whom
1. UK Professional Registration (GMC/NMC etc.) for all members of proctor team (PT)	To confirm credentials of each member of the proctor team (PT)	Proctor LDLT MDT
2. Proctor team sign off by OTDT- NHSBT Medical Director	Provide assurance that PT has the appropriate credentials	OTDT Medical Director
3. Evidence of Trust approval and local governance arrangements to support A-A LDLT in centre using a PT	Confirm local Trust approval and governance arrangements in place	Local hospital LDLT MDT
4. Evidence that an approved clinical protocol for donor assessment, surgery, management, recovery and follow-up has been followed, according to UK best practice guidelines (including Human Tissue Authority (HTA) approval to proceed)	Ensure standardisation and adherence to evidence-based best practice for donor management	Local LDLT MDT & Proctor LDLT MDT
5. Evidence that an approved clinical protocol for recipient assessment, surgery, management, recovery and follow-up has been followed, according to UK best practice guidelines (to include consideration of offers from deceased donors prior to scheduled transplant proceeding)	Ensure standardisation and adherence to evidence-based best practice for recipient management	Local LDLT MDT & Proctor LDLT MDT
6. Evidence that PT has signed off the clinical assessments for both donor and recipient and have approved donor and recipient procedures to 'go' (e.g., 'go/no go' MDT with PT and local team)	Meet agreed governance arrangements for UK A-A LDLT programme, provide assurance to wider clinical community and encourage confidence in operational model	Local LDLT MDT & Proctor LDLT MDT
7. Evidence of a 'disaster plan' in the event of a poor outcome for donor, recipient or transplant	Limit damage for individual donors and recipients and negative impact on further development of UK A-A LDLT programme	Local LDLT MDT & Proctor LDLT MDT
8. Approved communication plan between all parties involved i.e., donor, recipient, PT, local transplant centre and NHSBT, irrespective of outcome	Ensure that communications within the wider transplant community, in the media and on social media are accurate, effective and avoid unintended consequences	Local LDLT MDT & Proctor LDLT MDT
9. Contracts in place for proctor team to undertake clinical activity in the local hospital	To allow visiting clinicians from within the proctor team to work at the local hospital	Local LDLT MDT

Living donor liver transplantation

In the financial year to 31 March 2023, living donor liver transplantation accounted for 3.6% of living transplantation activity in the UK. The remaining percentage activity was due to living donor kidney transplantation. All 7 liver transplant centres have emerging living donation programmes but the majority of transplants are currently performed in three centres; St James's University Hospital, Leeds, Queen Elizabeth Hospital, Birmingham and King's College Hospital, London.

Living donor liver transplants are performed in both adult and paediatric recipients but have been historically more common in paediatric recipients where the left lateral lobe is transplanted. The right lobe is transplanted in adult-adult transplants. The same criteria for registration onto the transplant list are applied to living liver recipients as for deceased donor organ recipients.

For information and guidance about the legislative framework and how it applies to living donor liver transplantation access the Human Tissue Authority website.

Participating centres have developed local protocols based upon UK best practice guidelines, which can be found on the British Transplantation Society website. Individual transplant centres can be contacted through the Organ Donation website.

Living Donor Liver Transplantation Project (LDLT) - Commenced April 2022

The Living Donor Liver Transplantation (LDLT) project is aligned with the 'UK Organ Donation and Transplantation Strategy 2030: Meeting the Need' and aims to deliver a UK-wide programme that improves access to LDLT as one of a range of transplant options for adults and children with end-stage liver disease.

You can access the Terms of Reference (ToR) (PDF 198KB) here.

LDLT Project

LDLT Wider Engagement Event - 10th February 2023:

- LDLT Wider Engagement Event 10th February 2023 - Programme (PDF 143KB)
- Welcome and purpose of meeting - Derek Manas (PDF 2.19MB)
- Setting the scene and solutions - Doug Thorburn (PDF 791KB)
- Strategic context and OUG - Derek Manas (PDF 1.78MB)
- International and UK LDLT data - Raj Prasad (PDF 1.49MB)
- LDLT Project Board and workstream recommendations - Lisa Burnapp (PDF 498KB)
- Smaller size; left lobe grafts in adults - Nigel Heaton (PDF 2.46MB)
- Complex donor anatomy: what's acceptable? - Vivek Upasani (PDF 2.07MB)
- Moving towards minimally invasive techniques in living donation - Steve White (PDF 4.01MB)
- Enhanced Recovery After LDLT Surgery - Nick Schofield (PDF 3.77MB)

Living Donor Liver Transplantation (LDLT) Proctor Team

This multi-disciplinary Proctor Team has been established under the auspices of the LDLT Project to facilitate the expansion of adult-to-adult living donor liver transplantation across the UK. This is a time-limited initiative, endorsed by the clinical community and patient representatives. It is funded by commissioners, to improve access to LDLT for suitable recipients and their living donors.

In this section

- Living donor kidney transplantation
- UK Living Kidney Sharing Scheme
- UK Living Kidney Donation Network
- UK Living Donor Liver Transplantation Network
- Living donor liver transplantation
- Critical incident reporting
- Tools and resources

External links

- Human Tissue Authority
- Organ Donation NHS - About Living Donation
- British Transplantation Society Standards and Guidelines

Useful links

- Tell us about an incident

https://www.odt.nhs.uk/living-donation/living-donor-liver-transplantation/

NHS
Blood and Transplant

Lisa Burnapp
Joerg-Matthias Pollok

NHS
Blood and Transplant

Coffee Break 11:30-12:00

Chiesi

Certified B Corporation
This company meets high standards of social and environmental impact

NHS
Blood and Transplant

Clinical Session:Donor Assessment

Stephen Masson
Joerg Matthias-Pollok

Caring Expert Quality

LDLT Donor work up Liver anatomy and radiology assessment and quality

- Satheesh Iype
- Beverley Kok
- Emma Harkin
- Joerg-Matthias Pollok

Donor Details

- MM (Mother) (53)
- BG O+, weight 67kg, height 154cm, BMI 27

- PMHx- nil Hx, takes HRT post menopause
- Swims 3 times weekly
- Family Hx – Sister has T2DM
- Routine cervical screening 2020 & mammogram 2021
- Social – Works in HR for a US based company
- Alcohol – 5 rums per week – stopped since live donation process started 4/12 ago, non smoker, no illicit drug use

Donor step 2 – initial ax

- Initial blood work:

Confirmatory BG : O+

FBC - Normal

U&E- Normal

LFTs - Normal

Clotting - Normal

Hb	135
Platelet count	260
INR	1
APTT	29.5
Fibrinogen	3.4
Na	144
K	4.4
Cr	74

Bb	4
ALT	16
AST	19
ALP	54
Alb	48
AFP	1.4
CA19.9	13.9
CEA	2

Donor step 3 – Psychological assessment

- Nil psychiatry history
- Married with 2 children aged 23 & 26
- Good relationship with recipient
- Shows good understanding of risks involved with surgery, hospital stay etc – well informed
- Nothing to preclude her from being a live donor for her son
- Social worker review :
- Can take paid time off work – company very understanding

US Doppler liver & portal system

- The liver parenchyma appears generally mildly echogenic, which may indicate mild hepatic steatosis. The known small (5 mm) simple cyst in the left lobe of liver is unchanged in size. No other obvious liver lesions or ductal dilatation seen. Antegrade flow of the portal vein with normal velocity measuring 29 cm/sec. The hepatic artery RI is normal measuring 0.64. Patent Doppler waveform of the hepatic veins.
- The gallbladder appears thin walled and stone free. The CBD is of normal calibre measuring 3.9 mm.
- The known pancreatic body simple cyst measures 6 mm - unchanged in size. Pancreas appears otherwise unremarkable.
- The abdominal aorta, spleen (105 mm) and both kidneys appear grossly normal. Both kidneys measure approximately 112 mm in bipolar length.
- Impression:
- Mild hepatic steatosis. Known small left lobe of liver simple cyst. No other obvious liver lesions. Patent liver vasculature.
- Known stable pancreatic simple cyst.

Step 4 – Imaging

CT 4/11/22

The liver has a smooth contour. There is a 6 mm simple cyst in segment II.

There is a replaced right hepatic artery arising from the SMA. Patent portal and hepatic veins with conventional anatomy.

There is a 5 mm unilocular thin-walled cyst in the body of the pancreas. The pancreatic duct is not dilated.

No definite abnormality demonstrated within the unprepared small and large bowel.

Mild degenerative changes are present in the thoracolumbar spine

Opinion: Replaced right hepatic artery arising from the SMA. 5 mm side branch IPMN in the body of the pancreas.

Total liver volume = 1168, segments 1-4 = 437.

FLR – 37%, GRWR – 0.99

Fibroscan

- **Fibroscan Result**
- *Liver Median Stiffness :* 4.4 KPa
- (Comment: CAP: 233 Probe M)
- *IQR/Med :* 16 %
- *Success Rate :* 100 %

MRCP 14/12/22

The liver has a smooth contour.

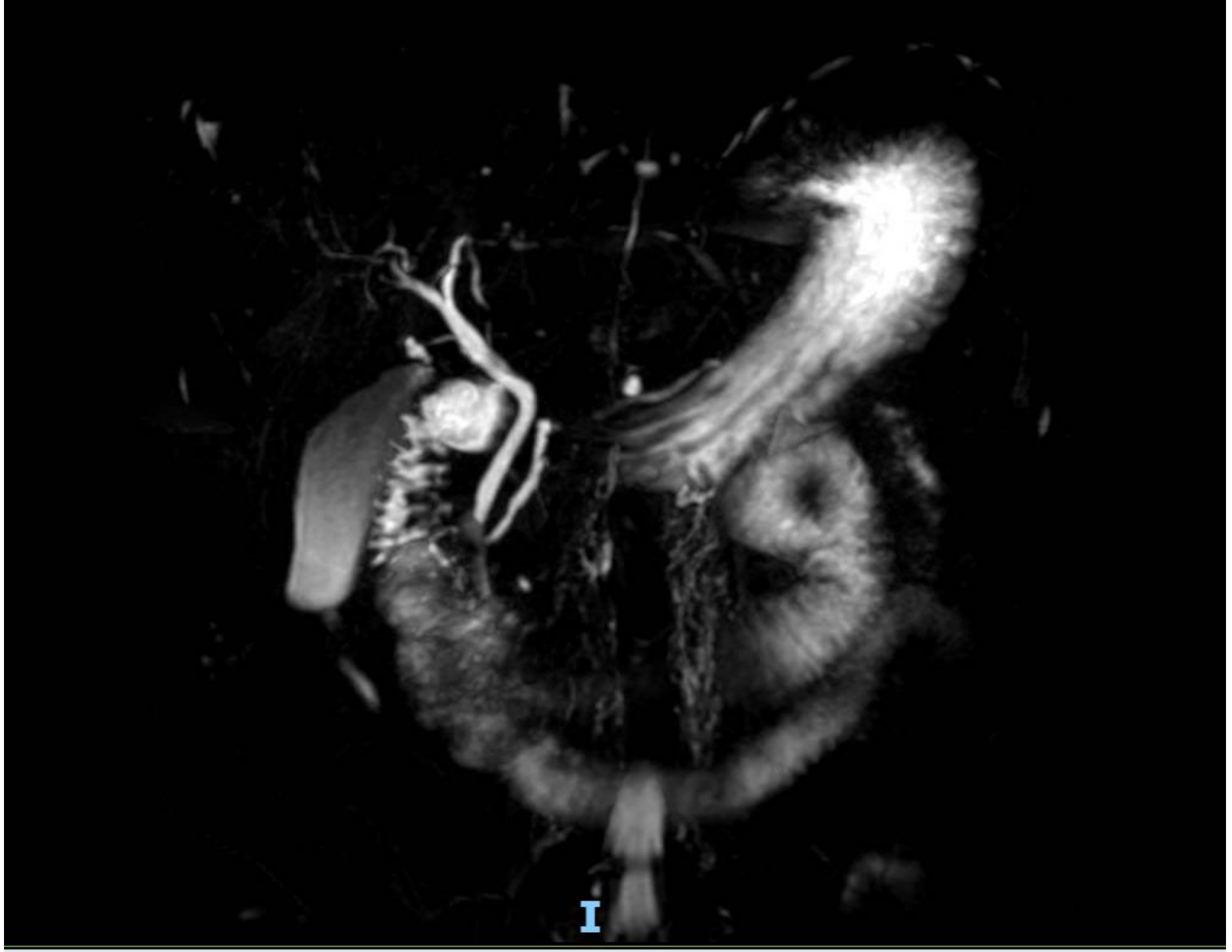
There is a 7 mm and hepatic cyst in segment II.

There is no biliary dilatation, stricturing or intraductal filling defects. Conventional biliary anatomy.

There is a simple 6 mm unilocular cyst arising from the pancreatic body demonstrating communication with the main pancreatic duct, which is not dilated.

Opinion: Conventional biliary anatomy. 6-mm pancreatic side branch IPMN.

MRCP



MRPDFF

There is an addendum added to the end of this report

ADDENDUM CREATED BY: Joshua Bell, Consultant Radiologist, GMC7271130 ON 27/02/2023 14:04

Clinical indication

potential right lobe donor, for MRI Live donor protocol, for MRCP and fat estimation please. discussed with DR Laverty and Mr Crabtree

Report Body

The right anterior and posterior ducts join conventionally to form the right hepatic duct. There is a small duct which is presumed to drain the caudate lobe which inserts onto the right hepatic duct 5 mm above the right hepatic/left hepatic duct confluence. The segment 4 duct drains into the left hepatic duct approximately 10 mm above the duct confluence.

The estimated liver fat fraction is 12.2%.

Tiny haemangioma in segment 3 along with a couple of subcentimetre cysts. 8 mm likely side ' branch IPMN arising from the pancreatic body. No other significant findings.

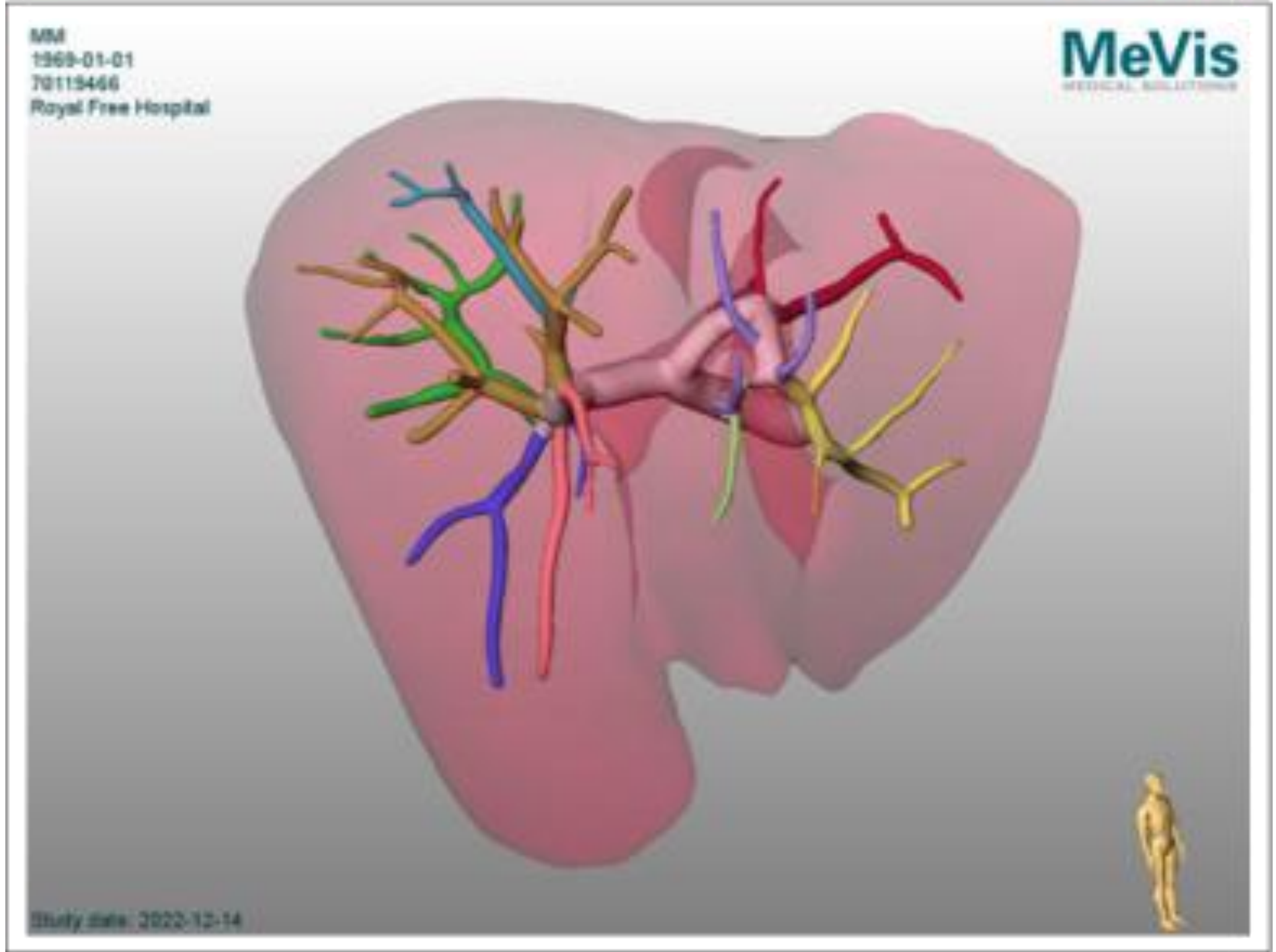
Double reported by Dr Albazaz and Dr Kaye (Cons Rads)

Re-reviewing the fat quantification the 12.2% estimate from spectroscopy is almost certainly an artefact. The liver does not appear steatotic on either in/opp phase or dixon images. The q-dixon fat estimate for an ROI in the right lobe is 0.9%

Addendum by: Joshua Bell, Consultant Radiologist, GMC7271130
Created Date: 27/02/2023 14:04
Verified Date 27/02/2023 14:11 Status: Validated

Reported by: Raneem Albazaz, Consultant Radiologist, GMC6101152,Thomas Kaye, Consultant Radiologist, GMC7016039 27/02/2023 13:07
27/02/2023 13:38
Verified by: Thomas Kaye, Consultant Radiologist, GMC7016039
Status: Validated

~ End of Report ~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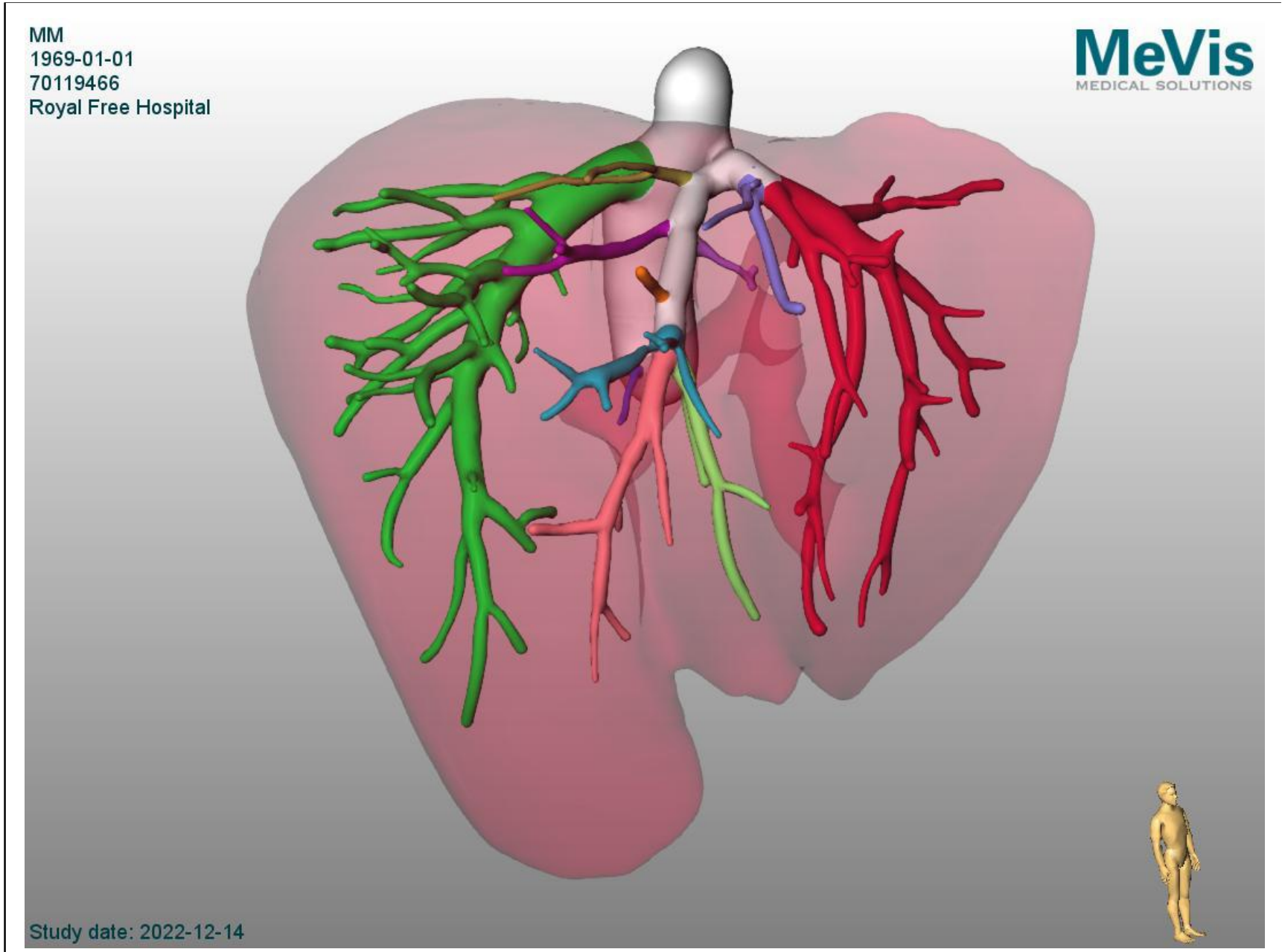

HV Anatomy

HV Territories (Volumes)

	Territory	Volume	Relative (%)
	HV1	28 ml	2.3
	inf.HV	18 ml	1.5
	LHV	257 ml	21.1
	LV4a	56 ml	4.6
	MV4a_8	87 ml	7.2
	MV4b	55 ml	4.5
	MV4b_5	92 ml	7.6
	MV8i	13 ml	1.1
	MV8m	64 ml	5.2
	MV8s	47 ml	3.9
	RHV	499 ml	41.1
	Total	1216 ml	100.0

Minimal deviations can be caused by rounding errors.

HV Territories (Volumes)

	Territory	Volume	Relative (%)
	HV1	28 ml	2.3
	inf.HV	18 ml	1.5
	LHV	257 ml	21.1
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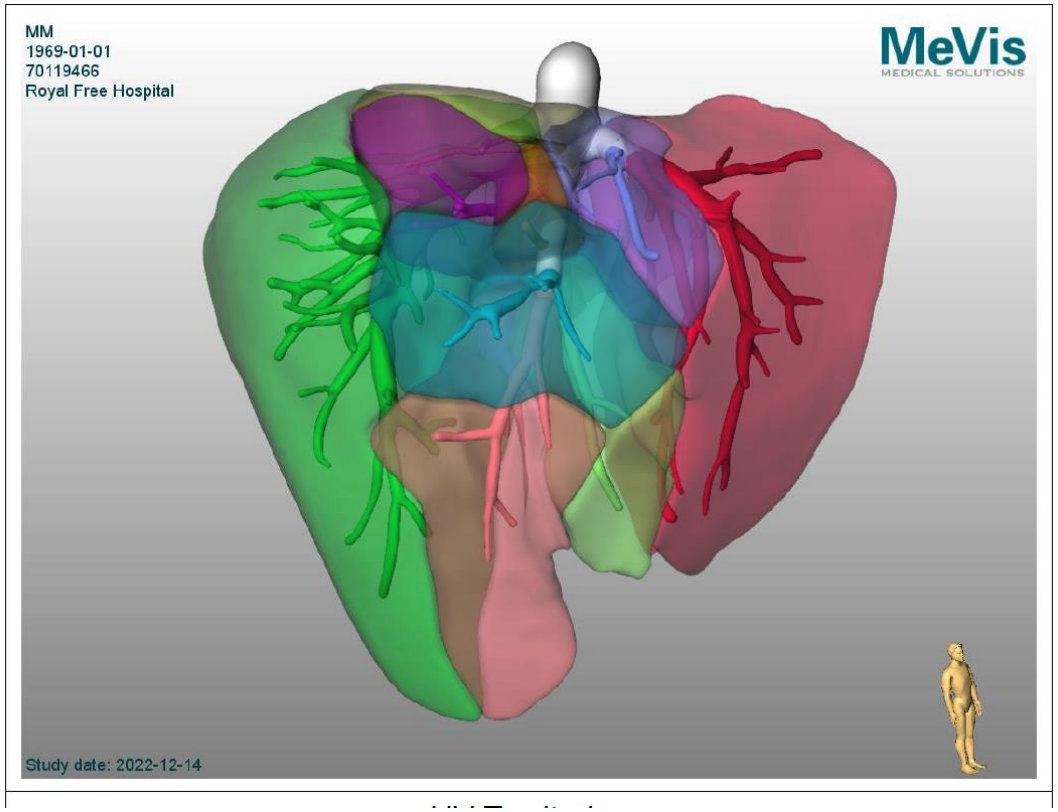
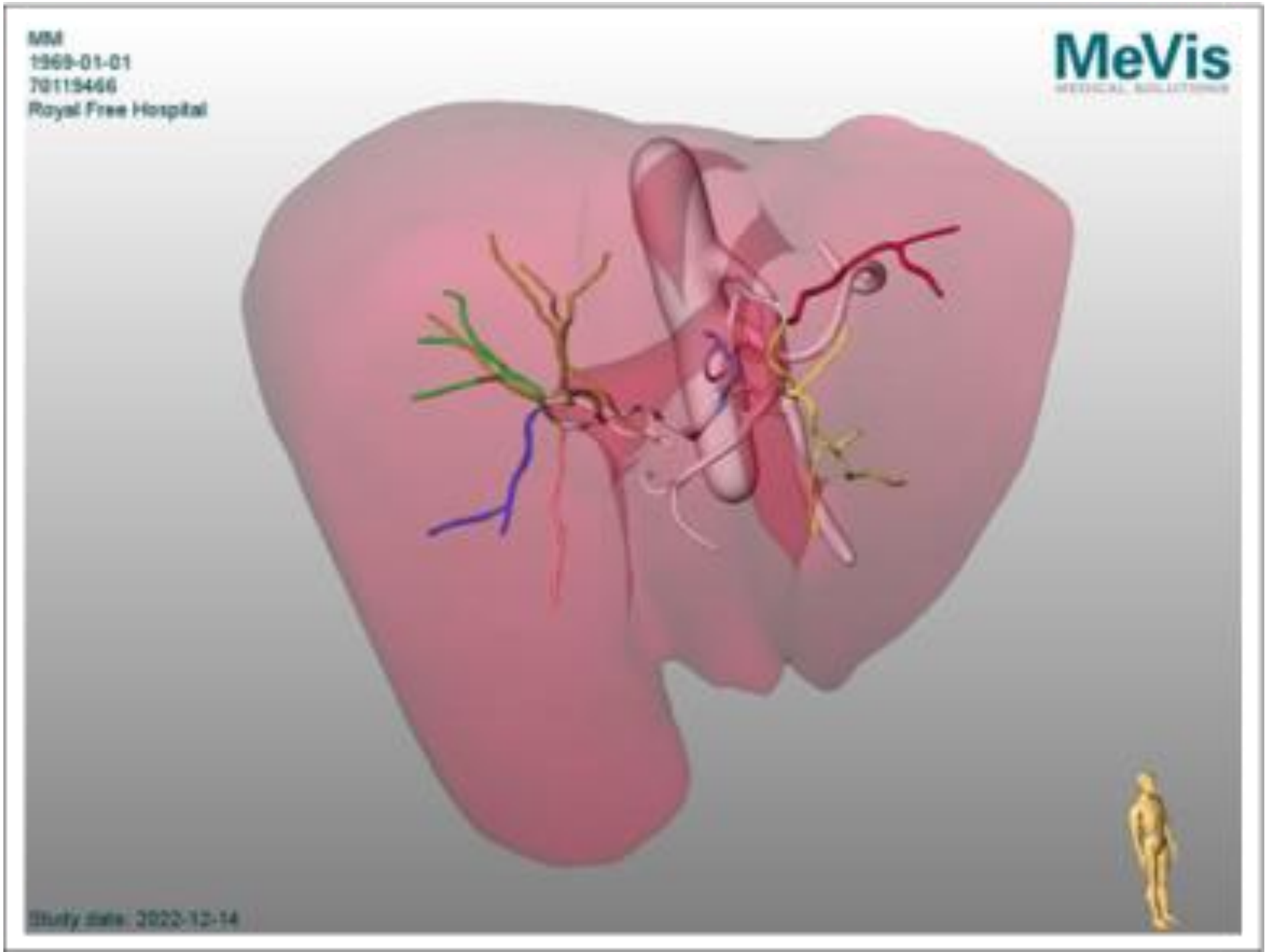


HA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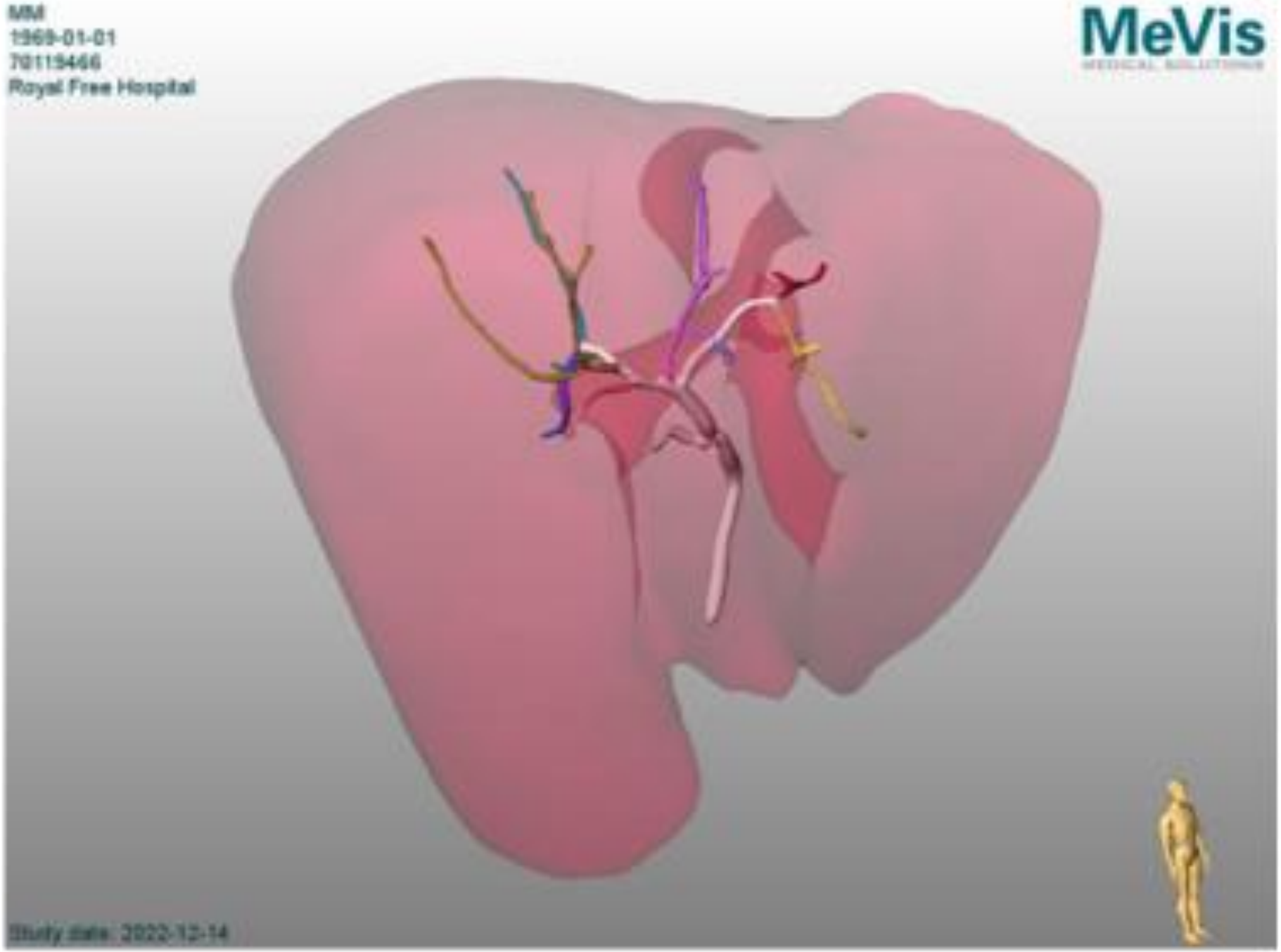
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Study date: 2022-12-14

3.1 Plane1, Right Lobe Graft without MHV

Plane1, Right Lobe Graft without MHV (Volumes)

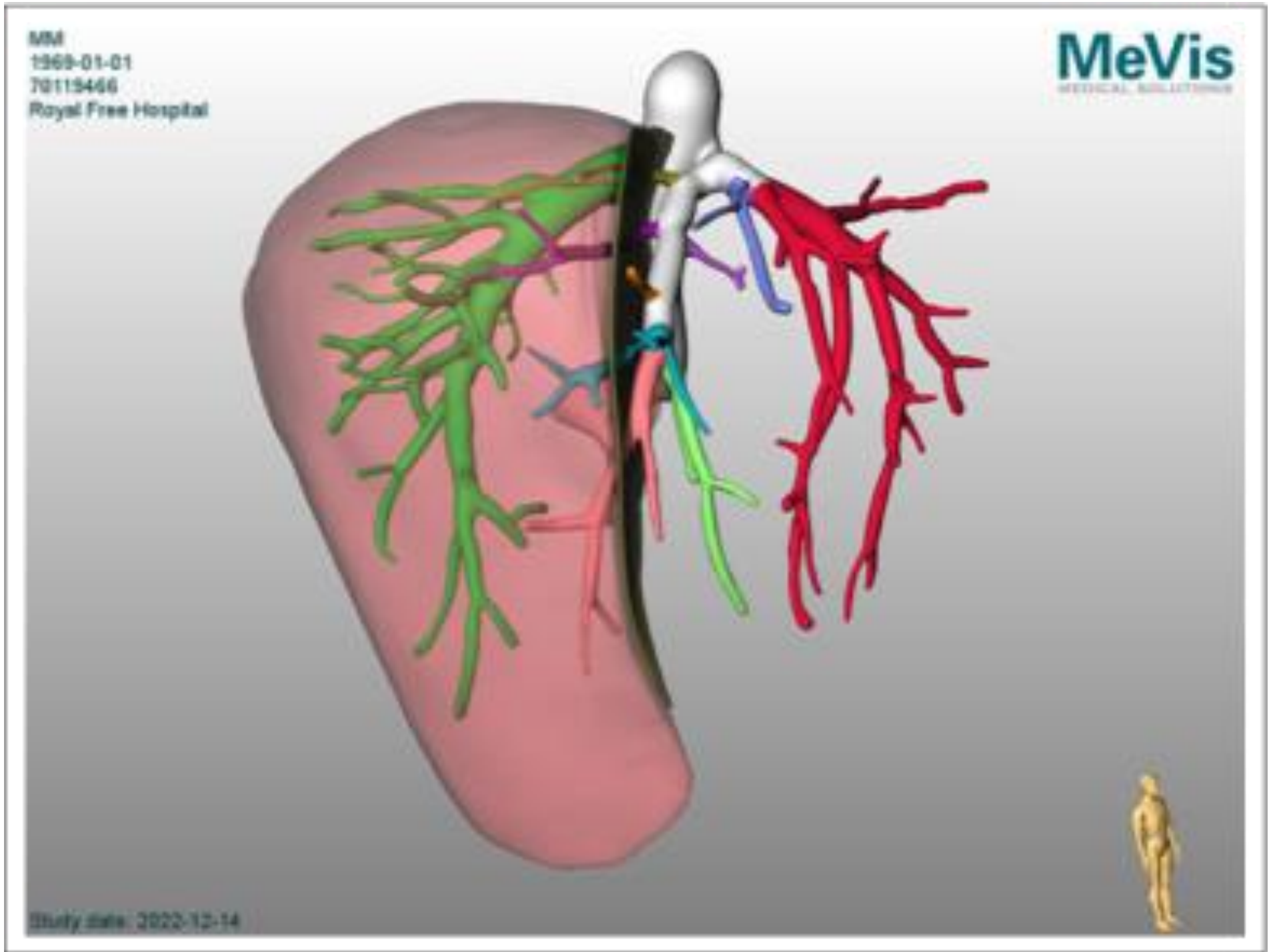
	Territory	Volume	Relative (%)
	Plane	17 ml	1.4
	Graft	723 ml	59.5
	Remnant	476 ml	39.2
	Total	1216 ml	100.0

Minimal deviations can be caused by rounding errors.

The estimated graft weight is about 658 g.

Key figures

Ratio	Based On	Value
Graft Recipient Body Weight Ratio	Estimated Graft Weight	0.88
Graft Recipient Body Weight Ratio	Graft Volume	0.97
Graft to SLV Ratio	Estimated Graft Weight	0.50
Graft to SLV Ratio	Graft Volume	0.55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3.2 Plane2, Right Lobe Graft with MHV

Plane2, Right Lobe Graft with MHV (Volumes)

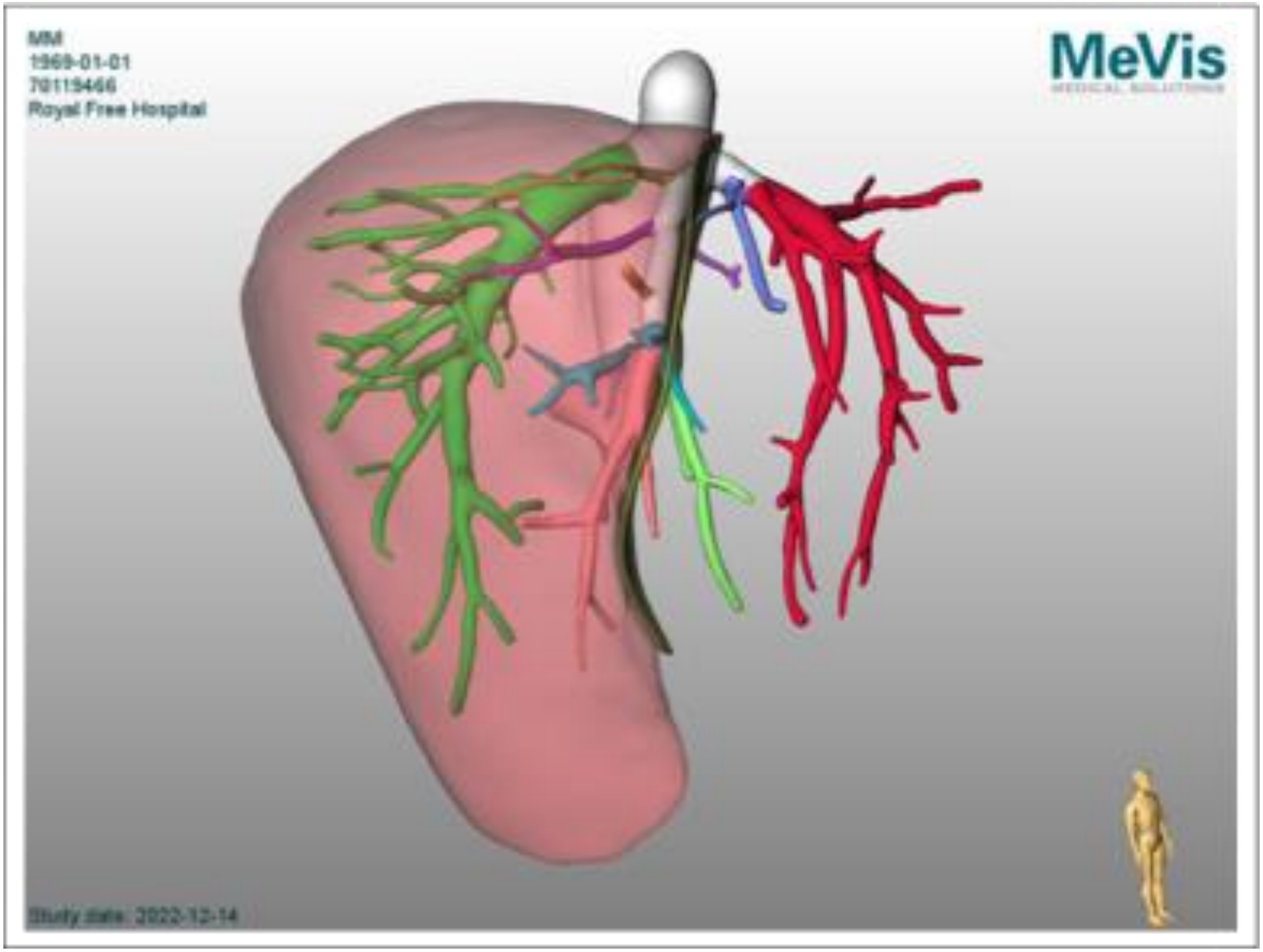
	Territory	Volume	Relative (%)
	Plane	16 ml	1.3
	Graft	783 ml	64.4
	Remnant	417 ml	34.3
	Total	1216 ml	100.0

Minimal deviations can be caused by rounding errors.

The estimated graft weight is about 713 g.

Key figures

Ratio	Based On	Value
Graft Recipient Body Weight Ratio	Estimated Graft Weight	0.96
Graft Recipient Body Weight Ratio	Graft Volume	1.05
Graft to SLV Ratio	Estimated Graft Weight	0.54
Graft to SLV Ratio	Graft Volume	0.60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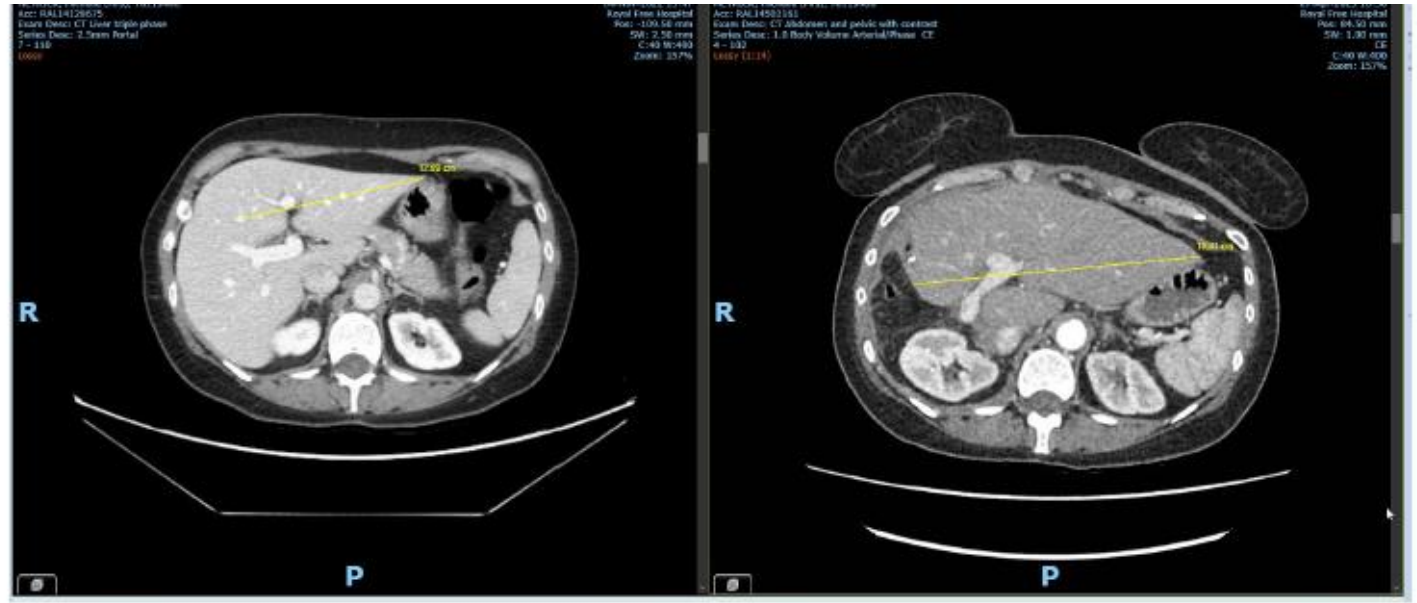
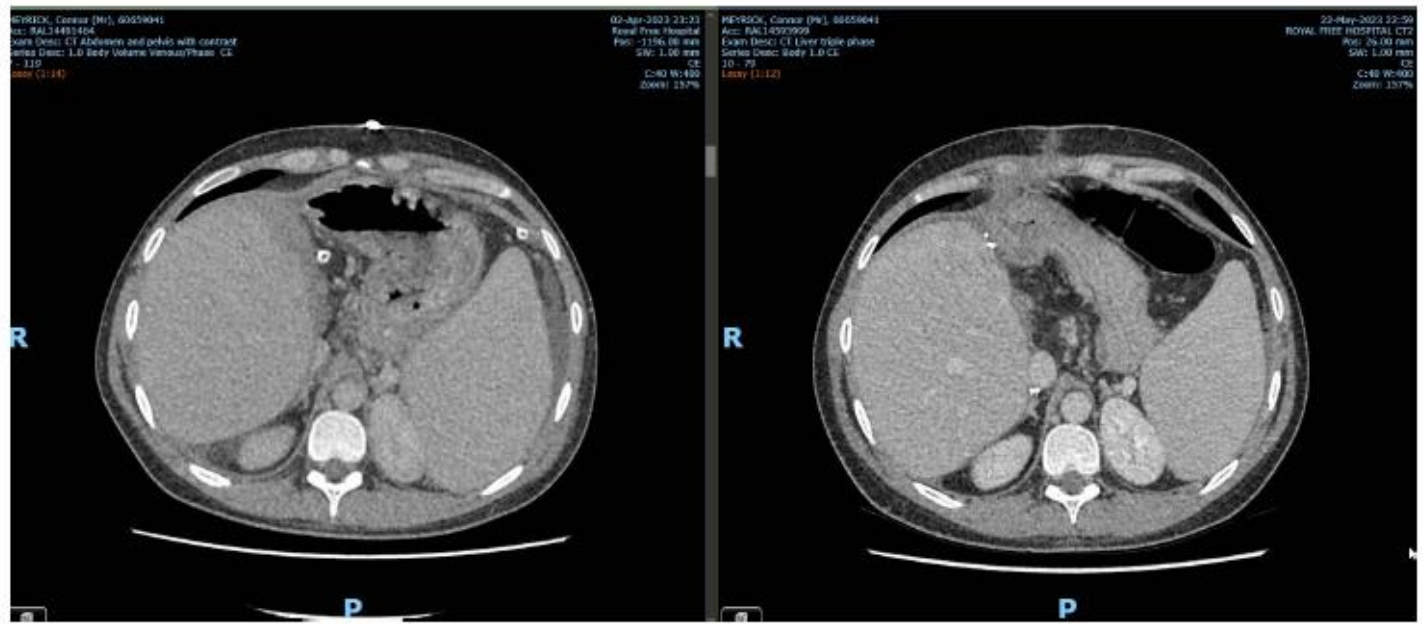
Study date: 2022-12-14

Donor



Recipient



Case 2

NHS Blood and Transplant

Potential Recipient

- 55yo female. ARLD cirrhosis (biopsy proven). Abstinent since presenting with alcohol-related hepatitis 2 years ago
- Type 2 Diabetes Mellitus, Obese (BMI 35); Cleaner: off sick
- Poor cardiorespiratory reserve (AT 8.4ml/kg/min) at initial assessment – enrolled in prehabilitation. Improves significantly (AT 12.5ml/kg/min)
- MELD 21; UKELD 59 (BR 170, Alb 28, PT 19)
- Registered on elective LT waiting list

Case 2

NHS Blood and Transplant

Potential Donor

- 21yo son - has been attending clinic with mum for 2 yrs – worried about her. Youngest of 6 siblings
- Unemployed, “setting up own business”

Donor	Recipient
Age: 21	Age:55
Son	Mother
Blood group: A	Blood group: A
BMI: 24	BMI: 35
Ht 1.72m, Wt 73kg	Ht 1.53m, Wt 83kg

Case 2

NHS
Blood and Transplant

Question:

Are you happy to proceed with further living donor work-up?

Case 2

NHS Blood and Transplant

Potential Recipient (21yo Son)

- Health check questionnaire
  - Asthma (Salbutamol inhaler); Smokes 5-10 cpd, Occasional alcohol; Previous cannabis
  - Lives with flatmate
- At initial clinic evaluation
  - OCD (Sertraline); Previously assessed/treated for ADHD
  - Never really had job; not clear on plans for future
  - **Adamant wants to donate and help mum**
  - Normal FBC, UE, LFT, Coagulation, Viral serology
  - Ultrasound: The liver is of normal size and echotexture. Normal directional PV, HV waveforms. Normal bile duct, GB, pancreas both kidneys and spleen. No free fluid.

Case 2

NHS
Blood and Transplant

Question:

How would you proceed?

Case 2

NHS Blood and Transplant

Psychosocial assessment

- General
  - Broke-up with girlfriend 6 months ago
  - Previous binge drinker
- Cannabis-related psychosis (aged 15)
  - Attended young-people's unit as a day patient for 2 months
- Paracetamol overdose (aged 16)
  - Depression around this time; Treated with Fluoxetine
- Self-harm
  - Scratching finished by aged 18
- ADHD
  - Previous treatment with Methylphenidate whilst at school
- Family history
  - Alcoholism (mother and father); no other mental health
- **<u>Good mental health since 18</u>**

Case 2

NHS
Blood and Transplant

Question:

What would you do next?

Case 2

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Subsequently…

Potential donor

- 3 years later: Radical orchidectomy – Seminoma pT1
- Well, 9 years later. Completed degree. No further mental health issues.

Potential recipient

- Deceased donor DBD LT – complicated by chronic wound sinus and PTDM
- Cervical cancer – radical radiotherapy
- Alive and well, 12 years later

The Leeds Teaching Hospitals NHS
NHS Trust

Enhanced Donor Assessments

Dr Krishna Rao

Leeds Liver Unit

Case1

- Just turned 51, male
- Fit and well, working full time as an accountant with excellent exercise tolerance, NO SOBE,
- Vital parameters Normal range
- Non smoker since a teenager,
- no medications on record,
- BMI 26.5
- No relevant family history

RECIEPIENT
Sick child on the cadaveric waitlist

Routine Evaluation

Routine FBC, Biochemistry , virology screening, immunoglobulin screening all within normal limits

Slightly Elevated Ferritin [457]

ECG: LBBB

Chest Xray:
Heart size normal with normal lung fields

How will you proceed?

Further Evaluation

- Hemochromatosis workup: Negative

- ECHO: Dilated LV, with marked hypokinesia and globally reduced contractions EF35%

Case 2

35/F BMI 22.8, previously run a marathon, 10 months postpartum.

Health Questionnaire no significant medical /family /psychosocial history

Pregnancy complicated by PIH and unplanned LSCS but uneventful recovery thereafter.

FBC/Biochemistry/virology/IECG/CXray
Within normal limits.

ANA screen/immunoglobulin levels all ok

Recipient : son born with biliary atresia on the pediatric list [for LLS]

TSH 52

How to proceed?

Further Evaluation..

Endocrine review: TTG/TPO/ free T3/T4

Treatment with Thyroxine initiated with good result

waited till free T4 within normal range and decreasing TSH before surgery.

Uneventful surgery and further post-operative course.

Mother and son doing well.

Lunch Break 13:30-14:30

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Equity of Access to LDLT: How do we do it?

Derek Manas
Matthew Cramp

Caring Expert Quality

Collaboratives: Where are we nationally

Dr Gareth Jones
NHS BT National Collaborative Lead

Professor D M Manas
Medical Director: OTDT

What is a collaborative ?

A regional collective of healthcare professionals who wish to drive quality improvement in transplant care through shared practice and learning.

Collaborative aims and goals

- Aims
  - Collaboration
  - Resilience
  - Standardisation

- Goals
  - Improve access to transplantation
  - Enhance “end to end transplant journey”
  - Deliver the recommendations of the OUG

How will collaboratives help? - Clinical

- Exploring boundaries – change utilisation culture
- Having better information transfer
  - To share patients
  - Online ‘patient passport’
- Open more Options – patients
  - Give more patient choice (Living and Deceased)
- Sustain the workforce - clinicians, teams working more collaboratively
- Developing regional collaborations
  - Sharing best practice
  - Common protocols
  - Exploring other unit ‘turn-downs’
  - Emergency contingency
  - Infrastructure support
- Improving Recipient outcome and patient experience
  - IMMUNOSUPPRESSION
  - ERAS
  - PROMS/PREMS
- Research collaborations

How will collaboratives help? – Commissioning

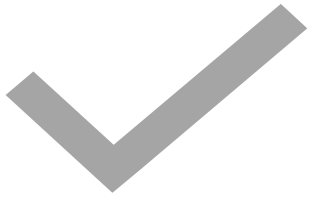
Engage with:

Highly specialised commissioners

Transplanting Trusts management

ISOU

Networks (when established)

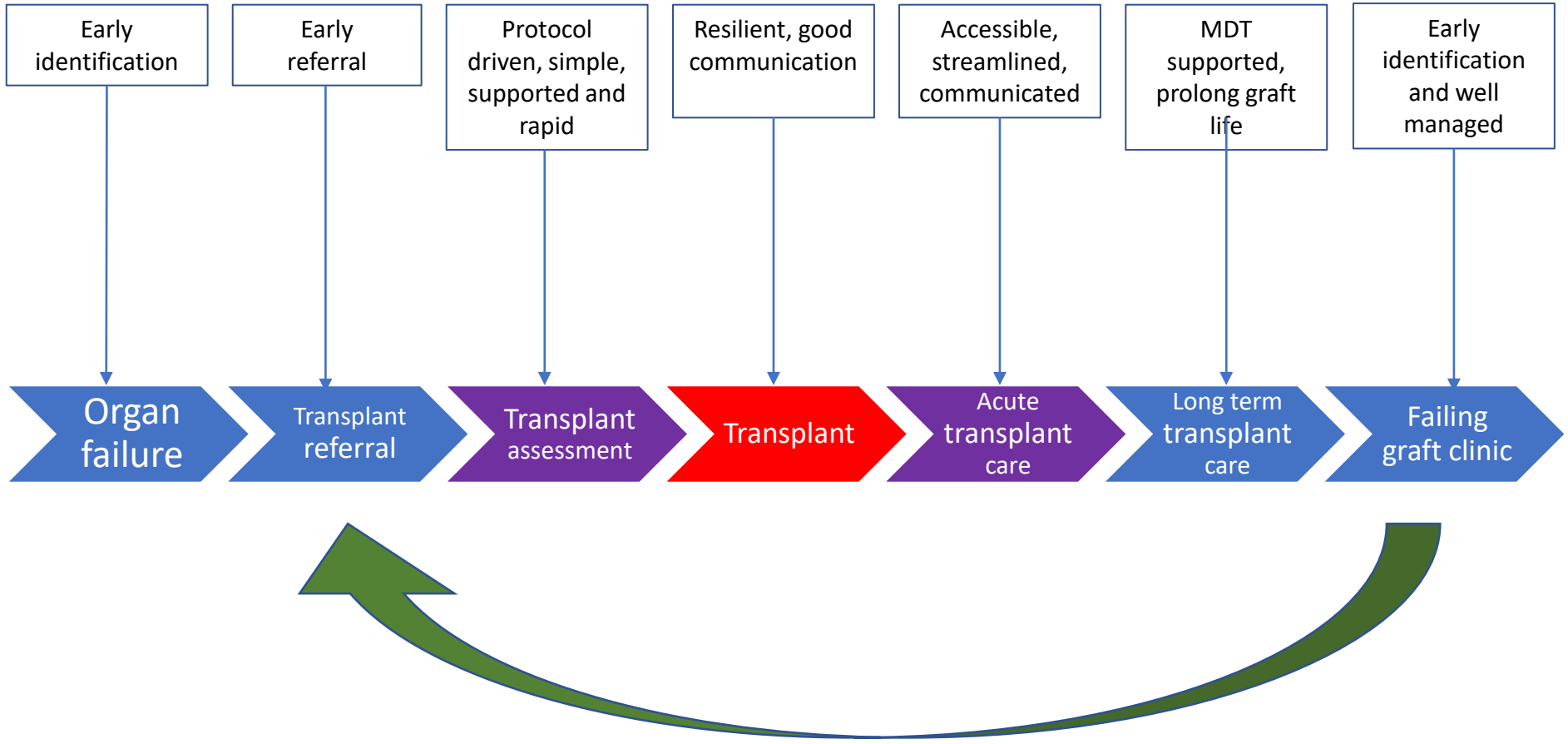


Understand the commissioning framework

For OTDT to have oversight

Support Transplant Units

End to end transplant care

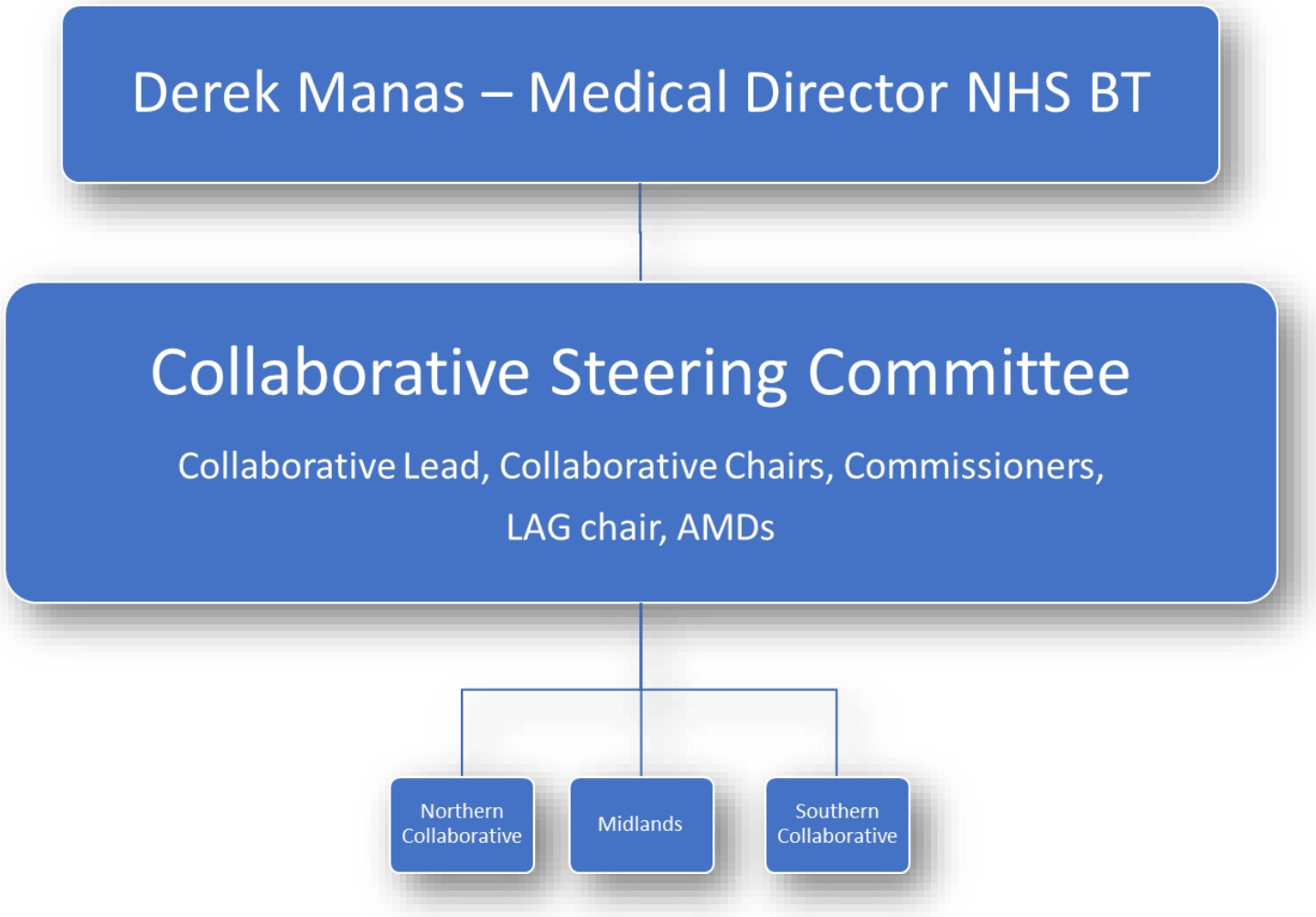


Liver and kidney collaboratives

Kidney collaboratives

Liver collaboratives

National structure and reporting



National level steering group

Regional Collaboratives

Regional Structure of collaboratives

- Regional
  - Chair - transplanting centre
  - Steering group
    - Small group of varied multidisciplinary professionals
    - Network leads
    - Experts by experience (patients)
  - Working groups
    - Task and finish
    - Varied membership
    - Single SMART objective
  - Schedule
    - Meet every 1-2 months to manage work programs
    - Quarterly national meeting of chairs

What are we asking of Transplant LLC ?

- Forming a transplant collaborative
  - Appointing a chair and deputy
  - Establishing a steering committee
  - Reaching out to network and referring centres
  - Finding common issues
  - Establishing working groups

Collaboration to build bridges

Equity of access and ensuring opportunity

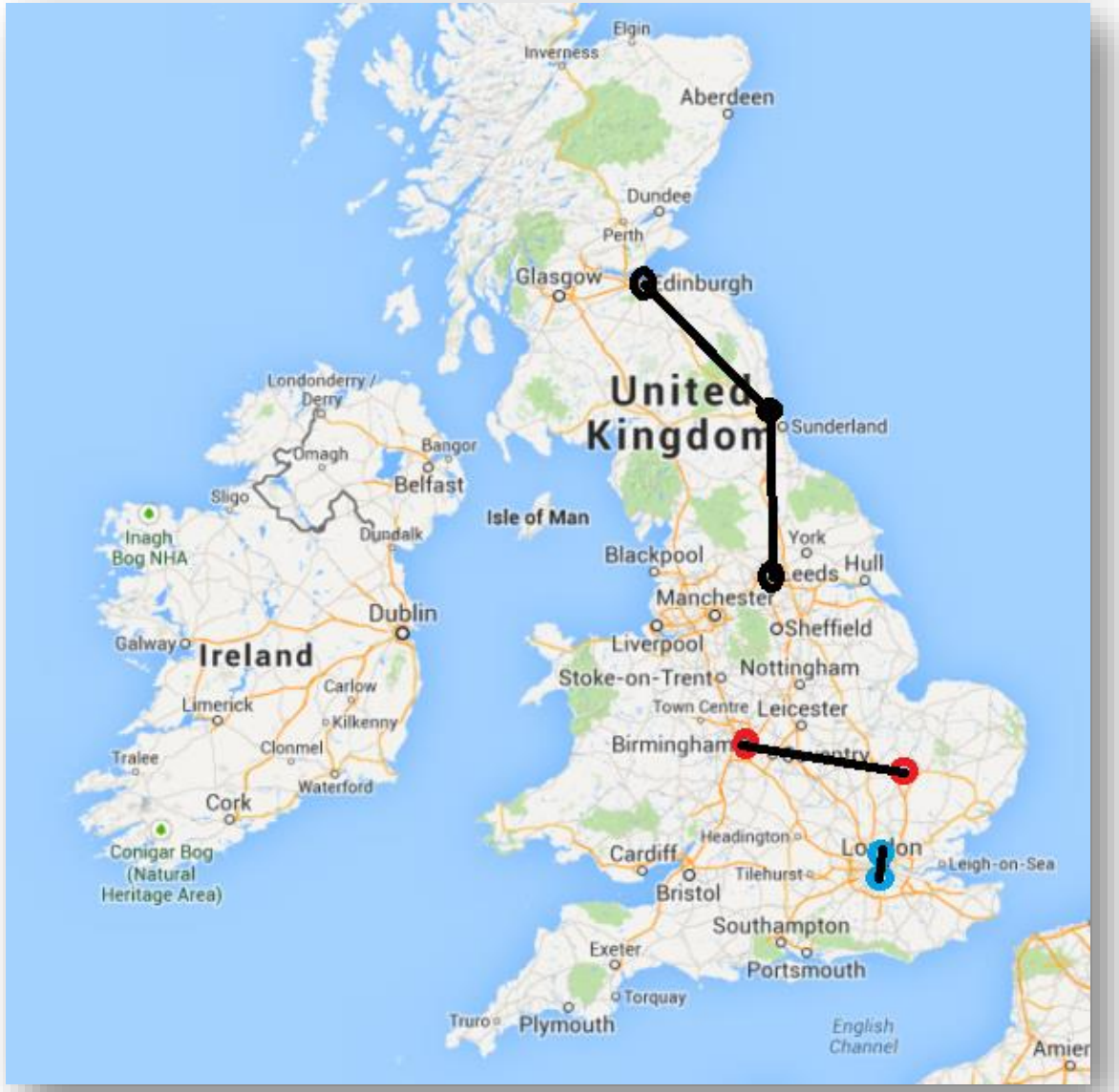
- Messaging:
  - Community and patients
  - Hepatologists (especially in non-transplanting centres)
  - Transplant centres
- Patient flow and pathways
  - Transplant centres not undertaking the surgery
  - Large ‘Non- transplanting liver units’

Liver Pathways

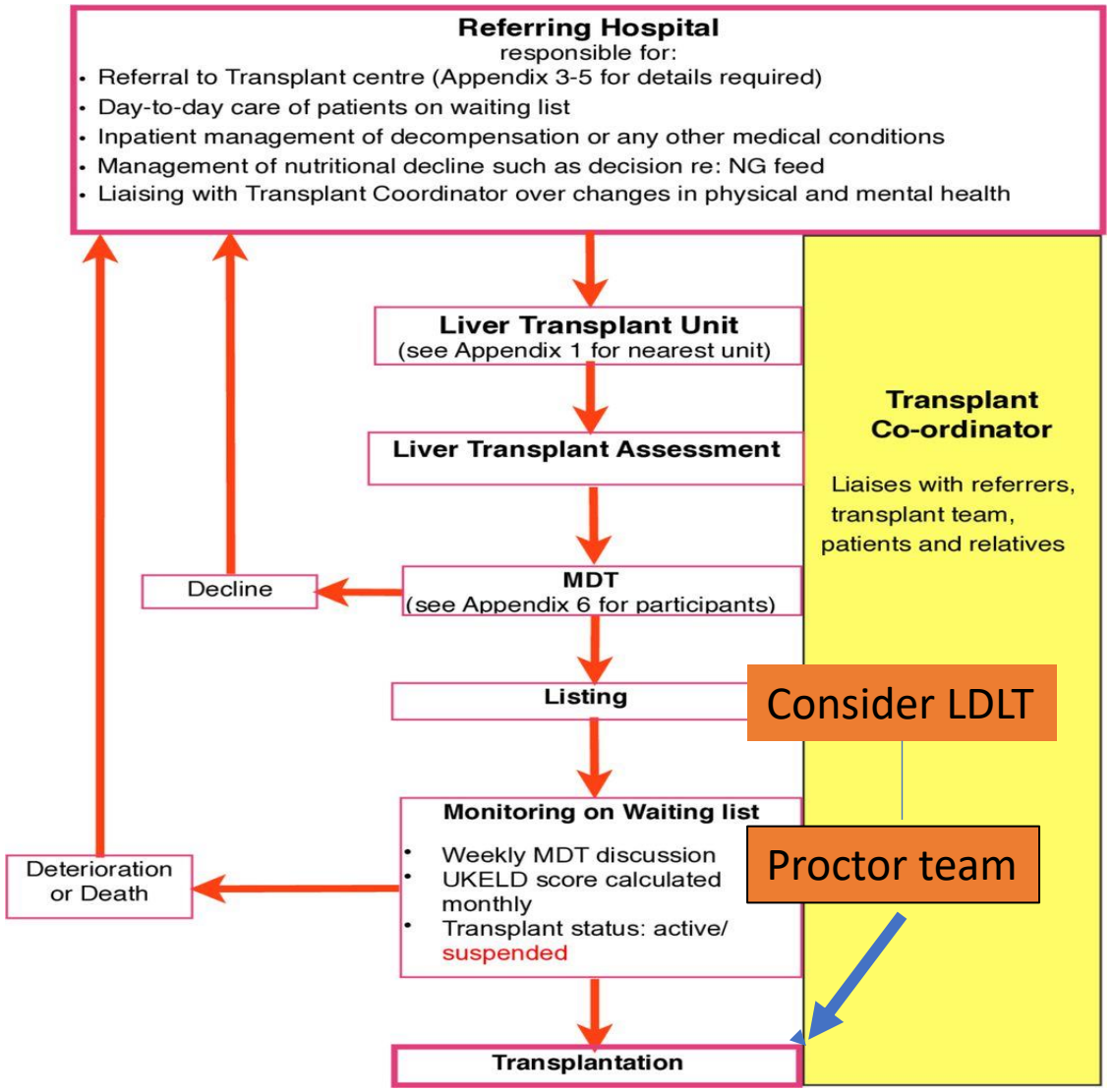
Edinburgh, Newcastle, Leeds, Birmingham, Cambridge, RFH, Kings

- Glasgow
- Manchester
- Liverpool
- Sheffield
- Nottingham
- Leicester
- Oxford
- Cardiff
- Bristol
- Southampton
- Portsmouth
- Plymouth
- Belfast

- Aberdeen
- Dundee
- Sunderland
- Gateshead
- North Tees
- South Tees
- York
- Hull
- Blackpool
- Stoke on Trent
- Coventry
- Bath
- Exeter
- Truro



Flow diagram displaying the process of LT assessment from initial referral through workup and listing meeting, to monitoring on the list and either transplant/ death or suspension from the list.

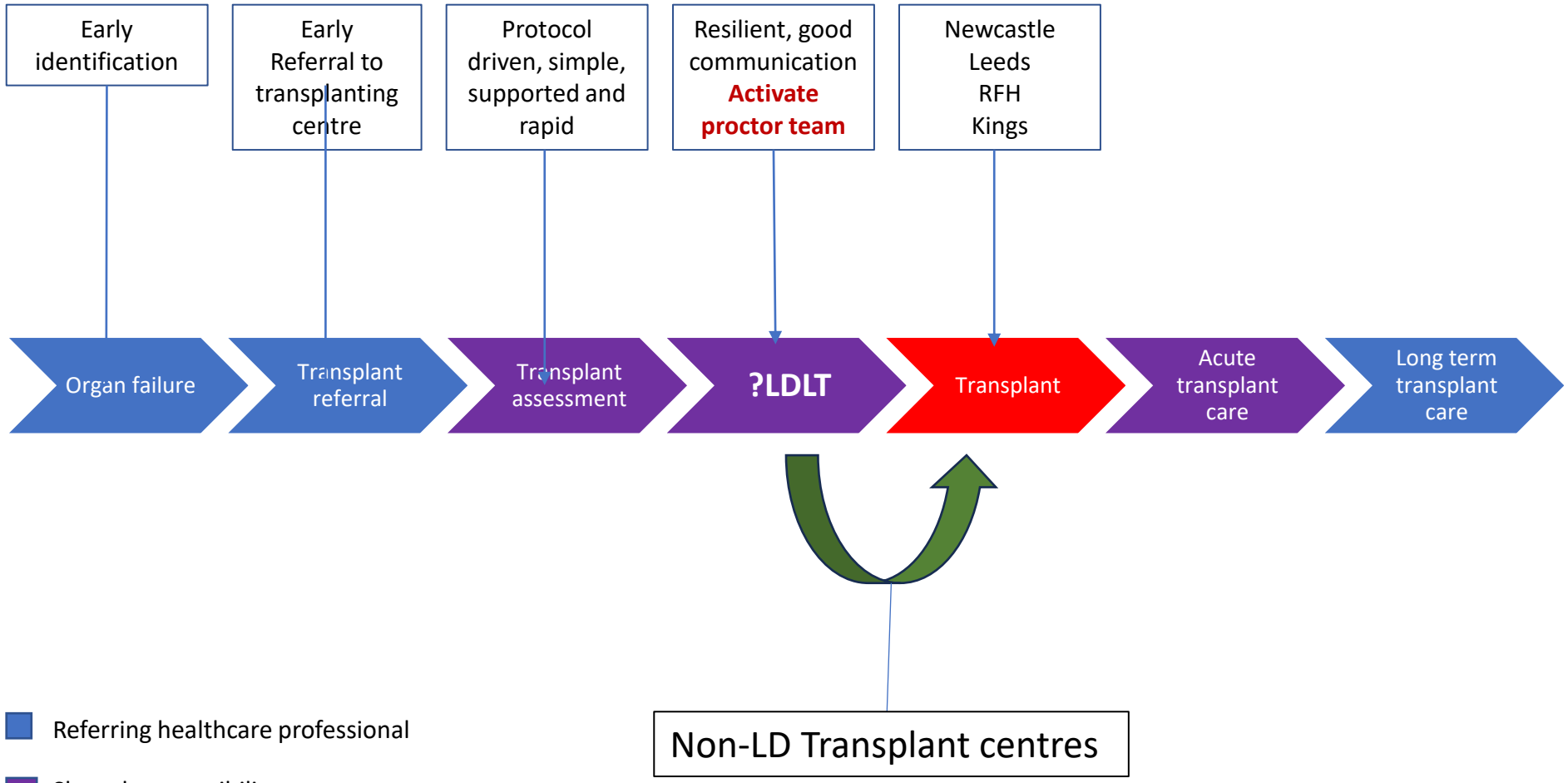


Appendix 6: The Liver Transplant Multi-disciplinary Assessment (Co-ordinated and overseen by Transplant Co-ordinator)

The Medical Assessment:		
Hepatologist	General health	Past medical history, current (non hepatological) medical issues, medication etc (see Table 3)
	Liver disease	Confirm history of liver disease, diagnosis, management and current treatment. Disease-specific evaluations (see Table 4) (If hepatocellular cancer present, oncology input)
	Drug History	To include allergies
	Urine tests	Glucose, protein, drug-screen (if relevant)
	Blood tests	Liver tests (non-invasive liver screen, synthetic function), renal function, viral screen blood-typing
	Cardio-pulmonary	ECG, PFTs and echocardiography (if not recently performed). Further testing, such as stress testing etc with advice from cardiologist (see Tables 3)
	Radiology	CXR, USS liver and CT/MRI depending on indication etc (see Tables 3)
	Cancer risk	Breast/Colon/Cervix where appropriate
	Latent infection	CMV status pre-transplant and post transplant prophylaxis HBV etc HIV status and treatment related issues
	Explanation	Explanation of process, all outcomes etc
The Surgical Assessment:		
Surgical team		Confirm liver transplant is indicated. Surgical issues: previous abdominal surgery, obesity, portal vein compromise, anatomical variants Discussion of procedure, risks, complications and organ issues.
The Dietetic Assessment		
Dietician		Assess nutritional status, including anthropometry Assess patient (and family) understanding of nutritional advice. Co-ordinate with dietetic service at referring hospital
The Anaesthetic Assessment		
Anaesthetist		Previous anaesthetic issues. Standard tests include Pulmonary function tests and Oxygen saturation. Risk assessment including specific cardiopulmonary issues. May request CPEX or DSE etc Discussion with patient/family over ICU, surgery process etc
The Psychosocial Assessment		
Social Worker		Psychosocial issues, family/support mechanisms, effect on dependants etc
Addiction specialist		Tobacco, alcohol and illicit drug dependencies
Psychologist		Mental health issues, addiction support etc

Charles Millson et al. Frontline Gastroenterol 2020;11:375-384

End to end pathway



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How do we address current inequity of access to non-directed altruistic donation?

Varuna Aluvihare
Lisa Burnapp

Caring Expert Quality

NHS
The Leeds Teaching Hospitals
NHS Trust

How do we address current inequity of access to non-directed altruistic donation?
Surgical Perspective

Vivek Upasani

UK Living Donor Liver Transplantation Network

21 May 2024

Leeds Living Donor Liver Transplant Programme – Altruistic Donation

- Altruistic donation more frequent in kidney than in liver donation
- Altruistic NDAD is further rare in liver donation
- Difference between kidney and liver NDAD is the magnitude of the surgical trauma and balance of risks

Leeds Living Donor Liver Transplant Programme – Altruistic Donation

- LDLT service commence 2007
- In total we have done 137 LDLTX, 47 RL (34%), 80 LLS(58%), 10 LL(7%)
- First altruistic donor 2012
- 21 altruistic donor procedures (+1 abandoned on table) – till date

Left Lateral Segment	Right Lobe	From Social Media Appeal
N = 17	N = 4	LLS = 2 Right Lobe = 1

- Median age 29 years (19 – 54)
- Donor relation – 61.5% first degree, 23.1% second degree, 1.9% unrelated (friend) and 13.5% altrusitic
- aLDLDT- 40% pLDLT- 60%

Leeds Living Donor Liver Transplant Programme – NDAD

- Between January 2012 to April 2021, 100 enquiries from NDAD were received, 14 progressed to donation, 11 donated a left lateral segment and three donated a right liver graft.

DEMOGRAPHICS OF NDAD enquiries = 100	
Gender	63% males
Age (median)	40 (18-60)
Found medically ”unfit”	30%
> upper limit Age (>50 years)	12%
No further engagement	45%
Former organ donation – kidney	7%
Total Proceeded to donation	14/40 (35%)

Leeds Living Donor Liver Transplant Programme – NDAD

DEMOGRAPHICS NDAD donation n = 14	
Age	29.6 (19-54)
Gender	8 males, 6 females
BMI	23 (19-27)
Weight (Kg)	69 (57-80)
Former donation	1 (Kidney)
Duration assessment (first visit to MDT decision)	91 (34-164) days
Time to donation (MDT decision to donation)	71 (13-204) days
Overall process length (first visit to donation)	156 (64-369) days

Leeds Living Donor Liver Transplant Programme – Altruistic Donation

- The donor cohort was demographically diverse, but they all shared a common desire to help others with their motivation and action.
- This group is intellectual, psychologically well balanced, self-aware and with a universal sense of social and personal responsibility to help others.
- Experienced LDLT programs should seriously consider NDAD liver transplantation.

Leeds Living Donor Liver Transplant Programme – Altruistic Donation
Points to note

- Longer period from start of assessment to donation- to accommodate donor commitments

- Longer cooling off period

- Allocation of grafts- Utility aspect (maximizing the good)
  - Equity aspect (fairness and justice)
  - Donor-recipient matching- anatomy, size of graft

How to address inequity of access to NDAD?

Challenges

Very small numbers- scarce source of grafts

Resource intense- workforce experience established over many years

Donor workup, suitability, availability, expectations

Donor- recipient matching- anatomy, size, timing of tx

Funding issues

Unfair to compare to kidney sharing scheme

How to address inequity of access to NDAD?

Future direction

- Working together
- Mutual trust
- LDLT proctor programme- will enhance the above
- Centres building up on LDLT programme and promoting altruistic donation

Equity of Access – Hepatologists' Perspective

- Families eternally grateful
- Children in the North – more likely to live in Poverty cf The South
  - Impact on social circumstances of families (feasibility of live donation / donors @ large)

Increasing total numbers:

- Awareness: Liver donation < Bone Marrow & Kidney Donation?
- Further Development of other Programmes / Resource investment

Addressing Inequities in Non-Directed Liver Donation

LIVER CO-ORDINATOR'S PERSPECTIVE

EMMA HARKIN

Barriers & challenges

- Lack of established programmes
- Logistical & geographical challenges
- Lack of awareness in general public
- Volume of enquiries vs donors proceeding
- Local resources
- Financial
- Culture

Ways to implement change

- Education, increasing awareness & promotion of Non directed donation publicly
- Streamlining process
- Collaborate with other centres – partnerships
- Data collection & analysis
- Financial/logistical support
- Dedicated staff

Final thoughts..

Recognition of risk in liver vs kidney donation

Need to address prejudices

Huge advantage to all of our waiting list patients if we can get the programme established and provide equity of access nationally.

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Meeting Close

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UK LIVING DONOR LIVER TRANSPLANTATION (UK LDLT) NETWORK MEETING, 21st May

Thank you

- Trudy Monday
- MD Secretaries
- Hilton Team
- Our sponsors

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