



Deonú agus Trasphlandú Orgán Éireann
Organ Donation Transplant Ireland

Organ Donation Transplant Ireland

2023

ANNUAL REPORT

Organ Donation Transplant Ireland (ODTI) has been delegated the regulatory functions assigned to the Health Service Executive (HSE) in Statutory Instrument (SI) 325 (2012), European Union (Quality and Safety of Human Organs Intended for Transplantation) Regulations 2012.

This annual report has been produced in compliance with part 5, SI 325 (2012):

25 (1) The HSE shall—

- (a) keep a record of the activities of procurement organisations and transplantation centres, including aggregated numbers of living and deceased donors, and the types and quantities of organs procured and transplanted, or otherwise disposed of in accordance with European Union and national provisions on the protection of personal data and statistical confidentiality,
 - (b) draw up and make publicly accessible an annual report on activities referred to in subparagraph (a), and
 - (c) establish and maintain an updated record of procurement organisations and transplantation centres.
- (2) The HSE shall, upon the request of the Commission or another Member State, provide information on the record of procurement organisations and transplantation centres.

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Director's Statement

Organ donation saves lives

The year of 2023 was largely one of normalisation, as the pandemic-related changes of preceding years subsided and more familiar patterns re-established themselves. It was, of course, hard to know what societal alterations might become entrenched, or whether normal activities would resume fully. Given the extent to which the donation of organs is a consequence of individual events, of traumas, strokes, haemorrhages and injuries, it was difficult to know what to anticipate or even hope for. What was clear was that the years of the pandemic had largely involved a decline in donations and in transplant activity, while the illnesses driving the demand for organs continued to afflict patients.

Ultimately 2023 was characterised by a rebound to pre-pandemic levels of deceased organ donation, with in fact an increase on previous averages overall. It was a relief in a sense for the hundreds of patients awaiting transplant, for advocacy groups and the various professionals in the three national transplant centres. Of course, the scale of the gesture made by the families of donors as they face profound loss is humbly acknowledged. Without their compassion and altruism, there would be nothing.

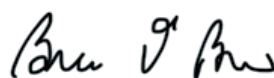
It is also noteworthy that within the data is a less obvious pattern, namely the increasing importance of donation after circulatory death (DCD). It is 10 years since this approach to organ retrieval was introduced to Ireland by Dr James O'Rourke and colleagues in Beaumont with the support of Organ Donation Transplant Ireland (ODTI). Initially it was only considered in quite rare circumstances, and it took time to become established in other centres. It is important to note that in 2023 this strategy underpinned about 25% of organ procurement, without which activity would have been at very low levels. By its nature

DCD leads to a slightly different pattern within the data of which organs are retrieved. The increased importance of the approach is demonstrated at Figure 3 in this document as we present for the first time in this annual report a sub-analysis of DCD activity as distinct from donation arising from brain-stem death.

In October Prof Jim Egan stepped down from his role as Director of ODTI after over a decade leading the service. Over the course of his tenure Prof Egan was central to the development of organ donation and transplant structures as we know them in Ireland today. A debt of gratitude is extended to Prof Egan for his untiring work over this time.

As this report is finalised in late 2024, and after a long period in preparation, the Human Tissue Act has been recently signed by the President. This will provide for the first time a clear legislative foundation for donation and transplant activity, and will necessitate some changes in how families are approached on the matter and how the public understands it and expresses their views on the matter. This will require outreach, education and collaborative planning. The following data will inform these endeavours and I thank all involved in collating it and, of course, all who contributed to the life-saving activities the report summarises. Each data point recorded here represents a life transformed.

Yours sincerely,



Dr Brian O'Brien
FCARCSI, M MED Sc, FJFICMI, FCICM (ANZ)
Director, ODTI.

Hospital Groups

RCSI HOSPITAL GROUP

- Beaumont Hospital
- **National Renal Transplant Centre**
- Our Lady of Lourdes Hospital Drogheda
- Connolly Hospital
- Cavan General Hospital
- Rotunda Hospital
- Louth County Hospital
- Monaghan Hospital

DUBLIN MIDLANDS GROUP

- St James's Hospital
- Tallaght University Hospital
- Midlands Regional Hospital Tullamore
- Naas General Hospital
- Midland Regional Hospital Portlaoise
- Coombe Women and Infant University Hospital

IRELAND EAST HOSPITAL GROUP

- Mater Misericordiae University Hospital
- **National Heart and Lung Transplant Centre**
- St Vincent's University Hospital
- **National Liver and Pancreas Transplant Centre**
- Midland Regional Hospital Mullingar
- St Luke's Hospital Kilkenny
- Wexford General Hospital
- Our Lady's Hospital Navan
- St Columcille's Hospital
- St Michael's Hospital Dun Laoghaire
- National Maternity Hospital

SOUTH/SOUTH WEST HOSPITAL GROUP

- Bantry General Hospital
- Cork University Hospital
- University Hospital Kerry
- Mallow General Hospital
- Mercy University Hospital
- South Infirmary Victoria University Hospital
- South Tipperary General Hospital
- University Hospital Waterford

SAOLTA HOSPITAL GROUP

- University Hospital Galway
- Sligo University Hospital
- Letterkenny University Hospital
- Mayo University Hospital
- Portlinculla University Hospital
- Roscommon University Hospital

UNIVERSITY OF LIMERICK HOSPITAL GROUP

- University Hospital Limerick
- Ennis General Hospital
- Nenagh General Hospital
- St John's Hospital Limerick

CHILDREN'S HOSPITAL GROUP

- Children's Health Ireland at Crumlin
- Children's Health Ireland at Temple Street
- Children's Health Ireland at Tallaght
- Children's Health Ireland at Connolly

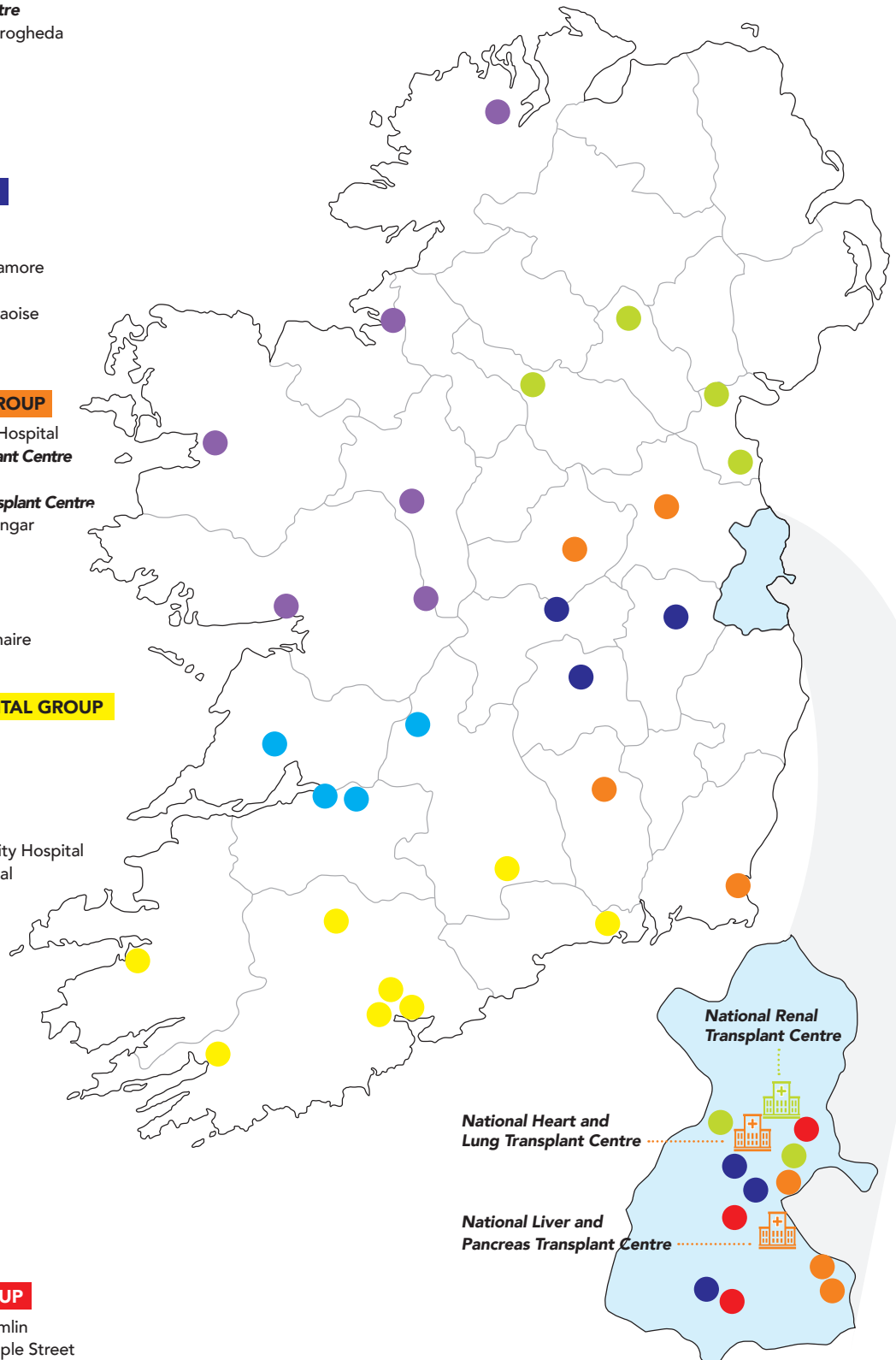


Table 1: Donation Activity per Hospital Group 2019 – 2023

RCSI Hospital Group					
Year	2019	2020	2021	2022	2023
Total	23	15	18	22	29

Beaumont Hospital, Our Lady of Lourdes Hospital Drogheda, Connolly Hospital, Cavan General Hospital, Rotunda Hospital, Louth County Hospital, Monaghan Hospital

Dublin Midlands Hospital Group					
Year	2019	2020	2021	2022	2023
Total	11	8	8	9	13

St James's Hospital, AMNCH-Tallaght Hospital, Midlands Regional Hospital Tullamore, Naas General Hospital, Midland Regional Hospital Portlaoise, Coombe Women and Infant University Hospital

Ireland East Hospital Group					
Year	2019	2020	2021	2022	2023
Total	15	9	7	13	11

Mater Misericordiae University Hospital, St Vincent's University Hospital, Midland Regional Hospital Mullingar, St Lukes's Hospital Kilkenny, Wexford General Hospital, Our Lady's Hospital Navan, St Columcille's Hospital, St Michael's Hospital Dun Laoghaire, National Maternity Hospital

South/South West Hospital Group					
Year	2019	2020	2021	2022	2023
Total	16	15	20	20	20

Bantry General Hospital, Cork University Hospital, University Hospital Kerry, Mallow General Hospital, Mercy University Hospital, South Infirmary Victoria University Hospital, South Tipperary General Hospital, University Hospital Waterford

Saolta Hospital Group					
Year	2019	2020	2021	2022	2023
Total	11	9	7	13	12

University Hospital Galway, Sligo University Hospital, Letterkenny University Hospital, Mayo University Hospital, Portiuncula University Hospital, Roscommon University Hospital

University of Limerick Hospital Group					
Year	2019	2020	2021	2022	2023
Total	7	6	4	4	6

University Hospital Limerick, Ennis General Hospital, Nenagh General Hospital, St John's Hospital Limerick

CHI Group					
Year	2019	2020	2021	2022	2023
Total	2	1	1	5	3

Children's Health Ireland, Crumlin, Children's Health Ireland, Temple Street, AMNCH-CHI, Tallaght

Private Hospitals					
Year	2019	2020	2021	2022	2023
Total	0	0	0	0	1

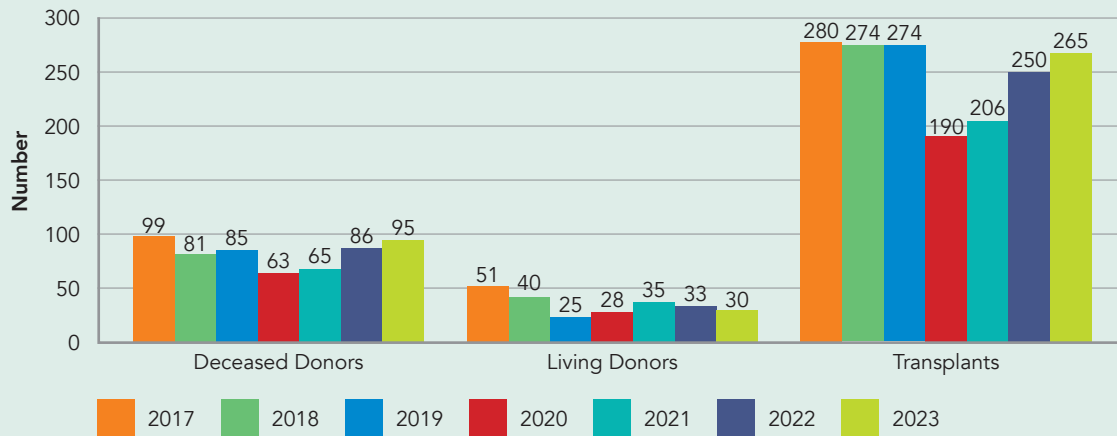
National Yearly Total					
Year	2019	2020	2021	2022	2023
Total	85	63	65	86	95

Organ Donation and Transplant Executive Summary 2019 – 2023

Table 2: Organ Donation and Transplant Summary 2019 – 2023								
		2019	2020	2021	2022	2023	5 year total	5 year average
Donations		85	63	65	86	95	394	79
Transplants from Deceased Donations	Kidney	128	95	104	130	159	616	123
	Liver	66	37	35	51	46	235	47
	Lungs	38	16	20	18	19	111	22
	Heart	15	9	10	10	5	49	10
	Pancreas	2	5	2	8	6	23	5
Total		249	162	171	217	235	1034	207
Living Kidney Transplants		25	28	35	33	30	151	30
UK Paired Kidney Exchange/* 2 desensitise in UK		3	1	2	8	2	16	3
Living and Deceased Kidney Transplants		153	123	139	163	189	767	153
Total Organ Transplants (Not including UK paired exchange/desensitised)		274	190	206	250	265	1185	237

Total Organ Donations and Transplant

Figure 1: Total Organ Donations and Transplants 2017 – 2023



Not including UK paired exchange or desensitised patients.

Figure 2: Donated Organs Utilised Abroad 2023

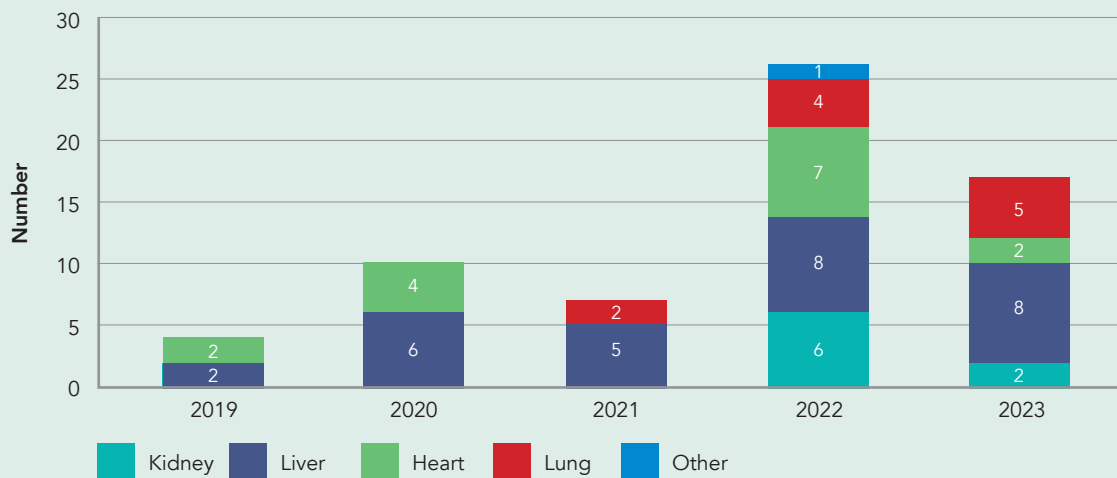


Figure 3: Number of DCD/DBD Donations 2016 - 2023

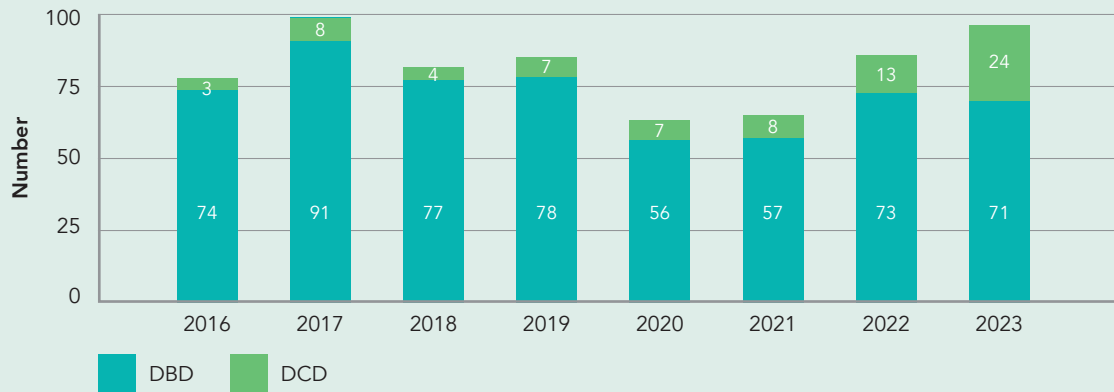


Figure 4: Number of Transplants from DCD Donors in Ireland 2016 - 2023

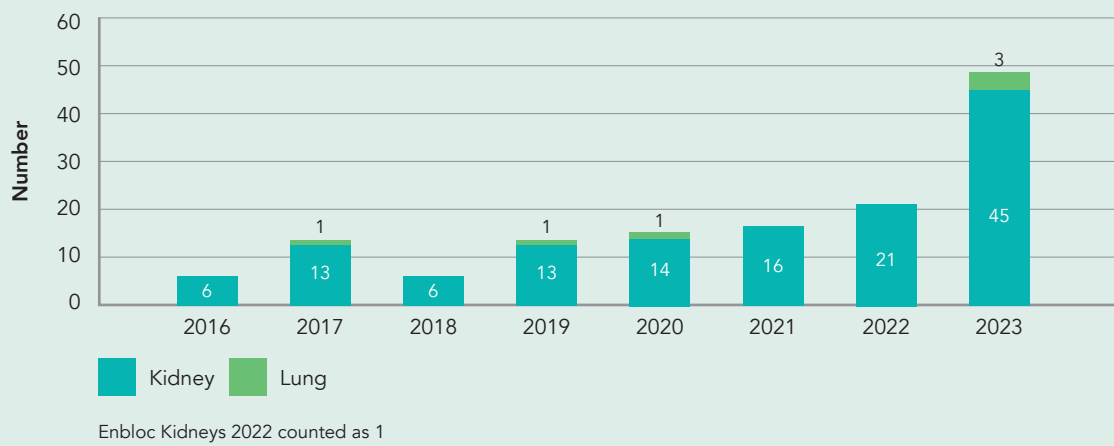
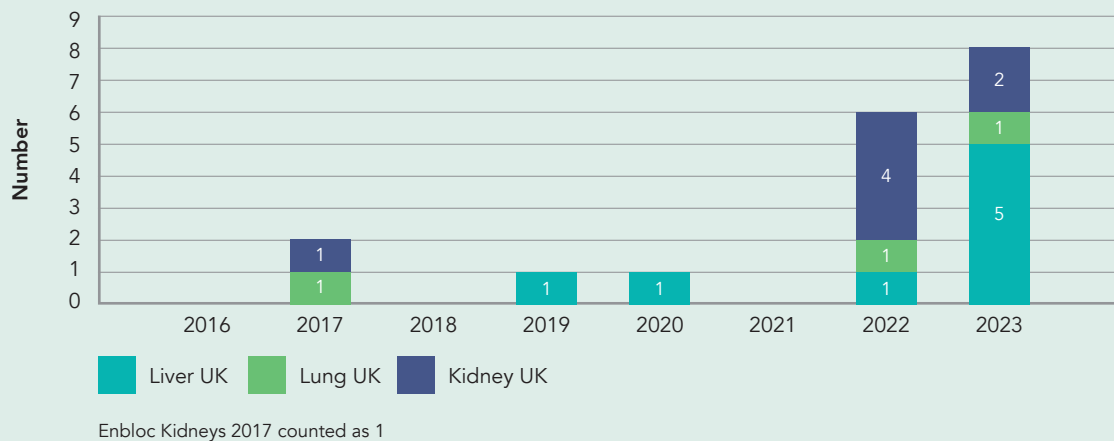
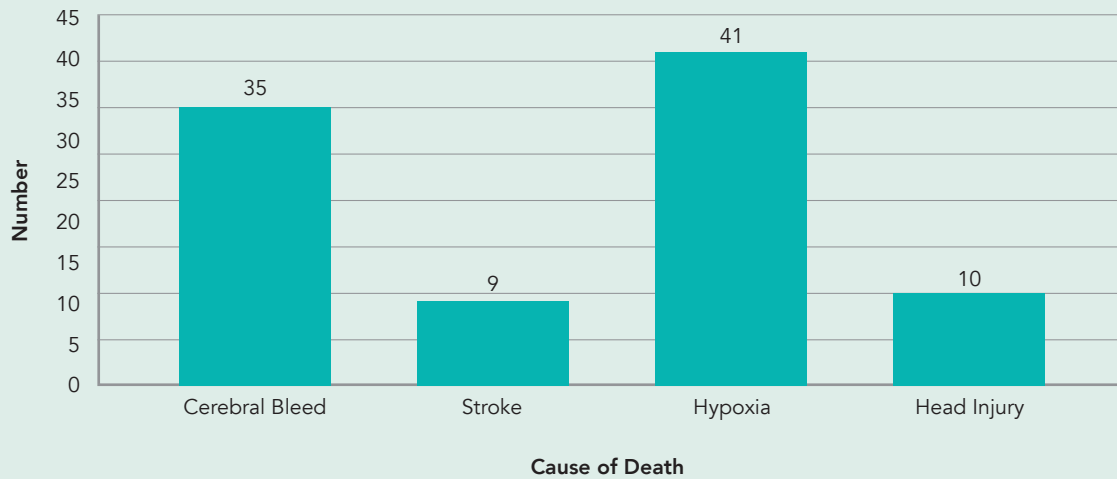


Figure 5: Transplants Abroad from DCD Donors



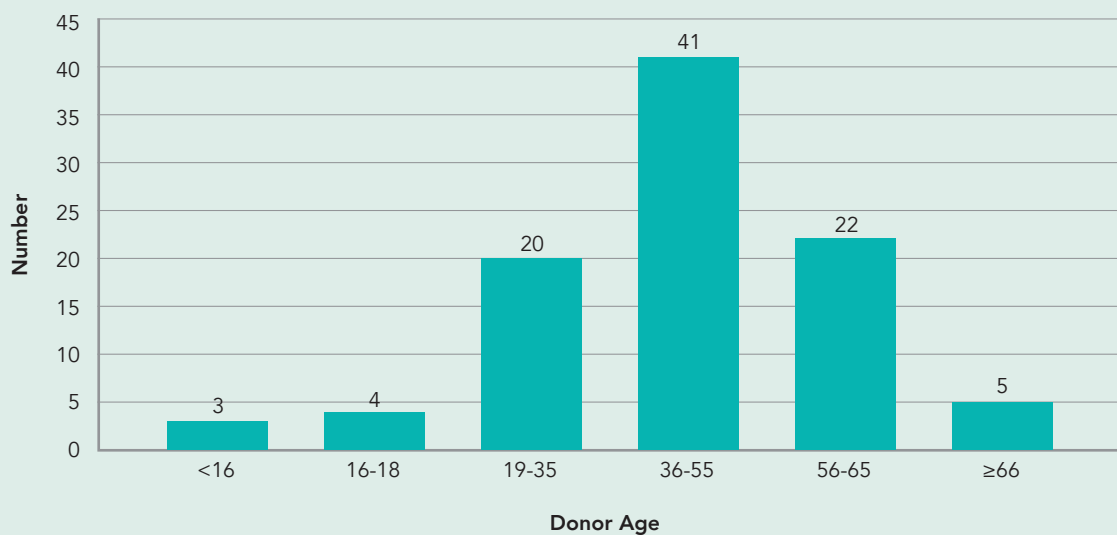
Cause of Death

Figure 6: Donor Cause of Death 2023



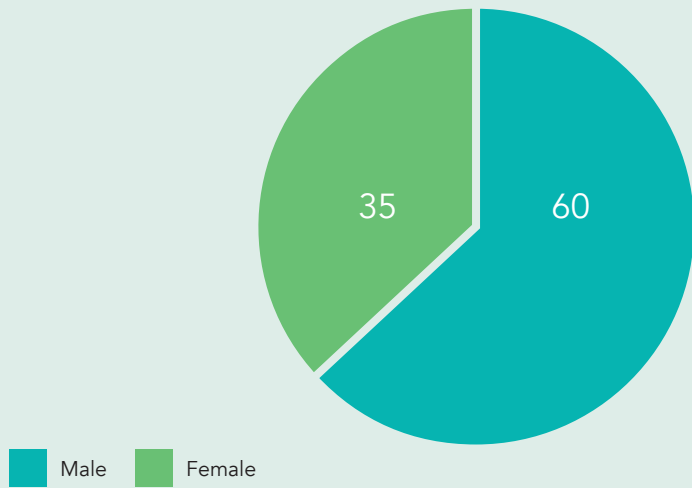
Deceased Donation

Figure 7: Donor Age 2023



Donor Gender

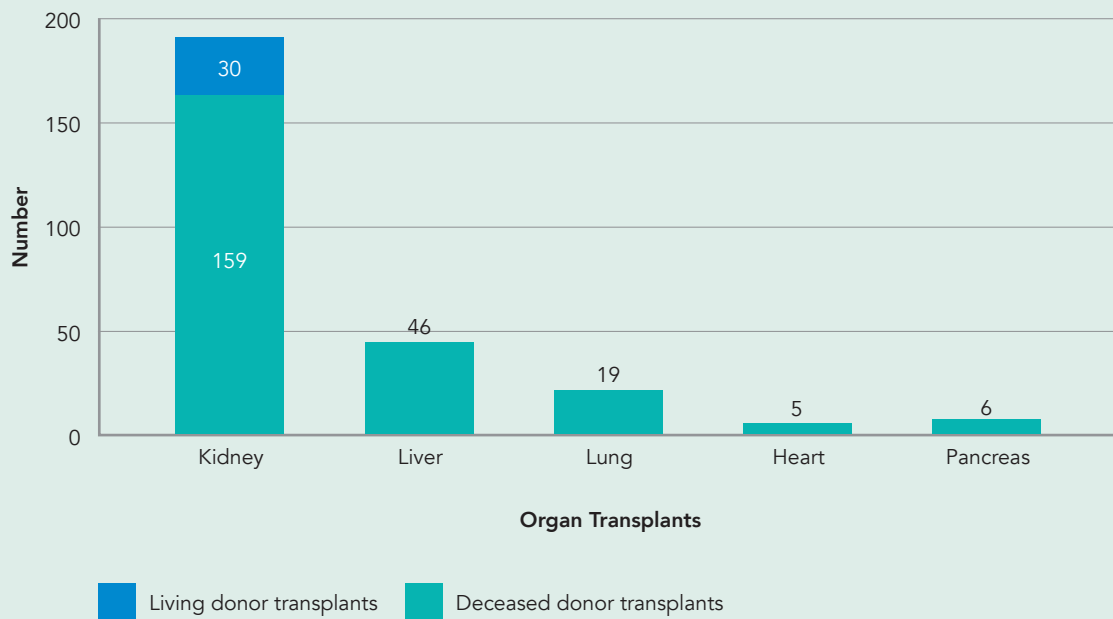
Figure 8: Deceased Donation Gender 2023



Transplantation

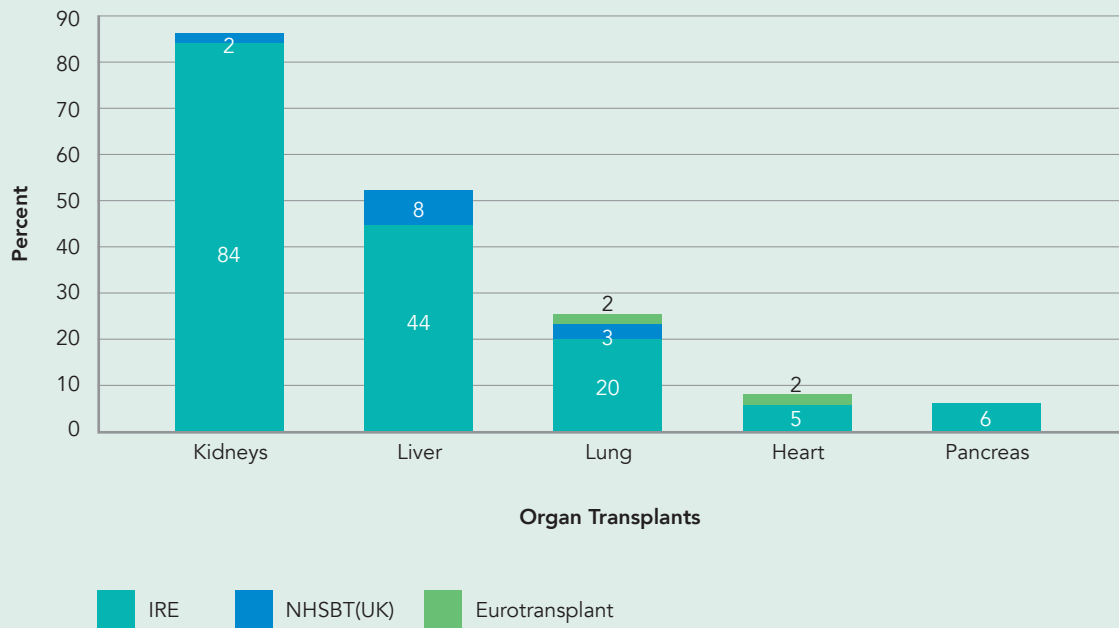
Organ Specific Activity 2023

Figure 9: Organ Specific Activity 2023



*Not including UK paired exchange or desensitised patients.

Figure 10: Conversion rates: Deceased Donor to Transplant 2023 (n=95)



National Kidney Transplant Service, Beaumont Hospital

This year we saw kidney transplant activity at the National Kidney Transplant Service (NKTS) at Beaumont Hospital finally recover to pre-pandemic levels. As we adapted our treatment protocols and management strategies to COVID and its evolving manifestations, we were able to successfully mitigate risks to patients while expanding opportunities for successful kidney transplantation. Challenges in organ procurement in Intensive Care Units also gradually decreased as transmission rates eased over 2023, especially in the latter half of the year, resulting in a restoration of activity to pre-pandemic levels.

Such was the restoration in transplant activity, that by the end of 2023 the NKTS had performed 189 kidney transplants, just shy of the highest number recorded in a single year. It is important to appreciate that kidney transplantation has changed considerably in the intervening years since that high-water mark of 192 transplant was achieved in 2011. In general, kidney organ offers are now from older patients of higher complexity and with more co-morbid illness. This is most clearly seen in the markedly increased use of organs from donors after cardiac death, which has risen as a proportion from none in 2010 to almost 30% of our activity in 2023. A similar pattern has emerged for 'extended criteria' donors (older donors with medical co-morbidity). While the transplant outcomes for patients receiving such transplants remains excellent, this necessary evolution in organ utilisation patterns is not without cost. Compared to previous years, kidney transplantation in 2023 was of significantly increased medical complexity due to co-morbidity and frailty requiring longer hospital stays, increased use of intensive care beds, high rates of delayed graft function, higher rates of readmission, increased utilisation of supporting services such as Histocompatibility and Immunogenetics (H&I) and interventional radiology and more intensive follow-up after hospital discharge. It is clear that continued investment in transplant infrastructure will be required, as these trends in organ utilisation are set to continue.

The number of patients alive with a functioning kidney transplant at year end 2023 is 2,730, a 4% increase on 2022. Despite the high-water mark for

transplant activity in 2023, the number of patients on the transplant waiting list has continued to rise by over 4.5%. In 2023, 198 new patients were listed for kidney transplant representing a 6% increase on the previous year. The global shortage of organs relative to the number of patients waiting for a kidney transplant remains an ongoing challenge. Increased awareness of living donor transplantation, increased resourcing as highlighted above to permit utilisation of more marginal organs and active transplant waiting list management to ensure fitness for transplant at the time of organ offer will all be required to meaningfully address the organ shortage.

We are seeing an increasing number of potential kidney transplant recipients actively seeking living kidney donors, resulting in the remarkable performance of 519 living kidney donor transplants over the past 17 years. Despite the COVID pandemic, the living donor program remained active during 2023 due to the availability of COVID vaccines for potential living donors and their recipients. Despite this, due to COVID infections and other unpredictable clinical situations we faced a number of short notice cancellations of living donor transplants. As potential donors and recipients were shielding from COVID earlier in the year, this posed logistical difficulties in substituting pairs for surgery at short notice. Despite this, the living donor rate was sustained, and we performed 30 transplants with approximately 22 donor recipient pairs having completed evaluations and scheduled for surgery early in 2024.

'Highly sensitised' patients, with high levels of pre-formed antibodies, require intensified immunosuppression to prevent transplant rejection and often struggle to find a matched kidney, resulting in very long waiting list times. The COVID pandemic posed unique challenges for such patients, when the risks of intensive immunosuppression were increased. Through a process of risk mitigation from immunosuppression individualization and intensified monitoring, the NKTS continued to transplant this complex patient group throughout the pandemic. This activity continued through 2023, with 23 very highly sensitised patients (PGen \geq 95%)

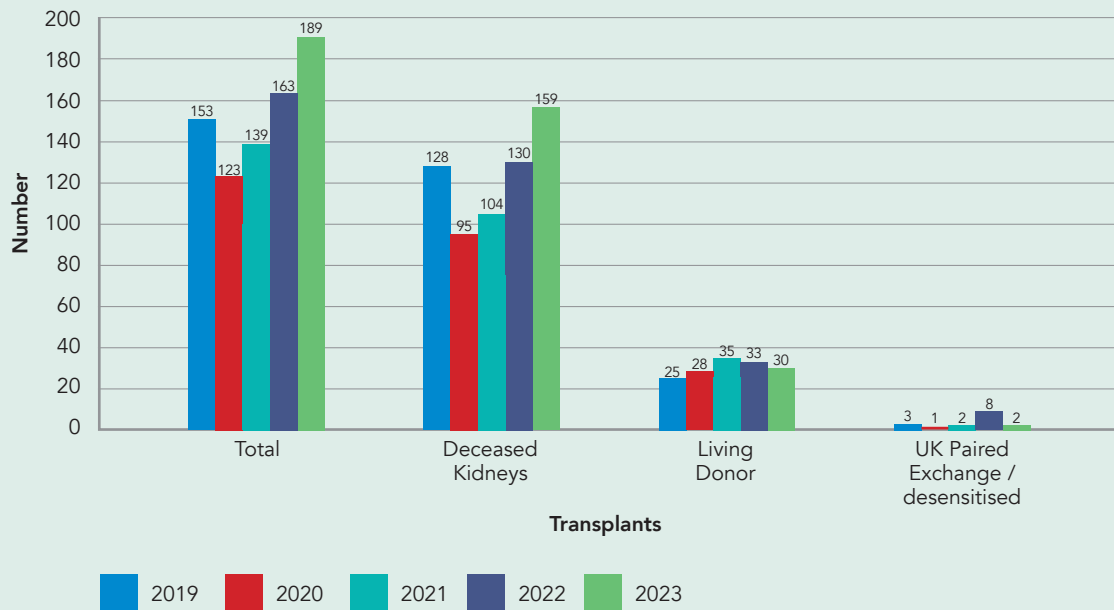
transplanted, similar to pre-pandemic levels. Progress in transplanting this group has resulted in a reduction in the average wait time on the list despite increasing patient numbers accessing the transplant waiting list.

We began 2024 by crossing a significant milestone in Irish kidney transplantation: the 6,000th kidney transplant was performed by the NKTS. This extraordinary achievement could not have been realised without the on-going work and efforts of all the members of the transplant team, the staff of the Intensive Care Units throughout the country under the auspices of the ODTI, and all the staff in Beaumont Hospital who continue to support us. We would especially like to acknowledge the forbearance of the patients that depend on this transplant program and the bravery of the living kidney donors. Finally, we wish to recognise the extraordinary generosity of all kidney donors and their families, to whom so many owe their lives and without whom the NKTS could not exist.

Mr Gordon Smyth
Surgical Director of Transplantation
Prof Conall O'Seaghdha
Medical Director of Transplantation
Beaumont University Hospital

Kidney Transplants 2019 – 2023

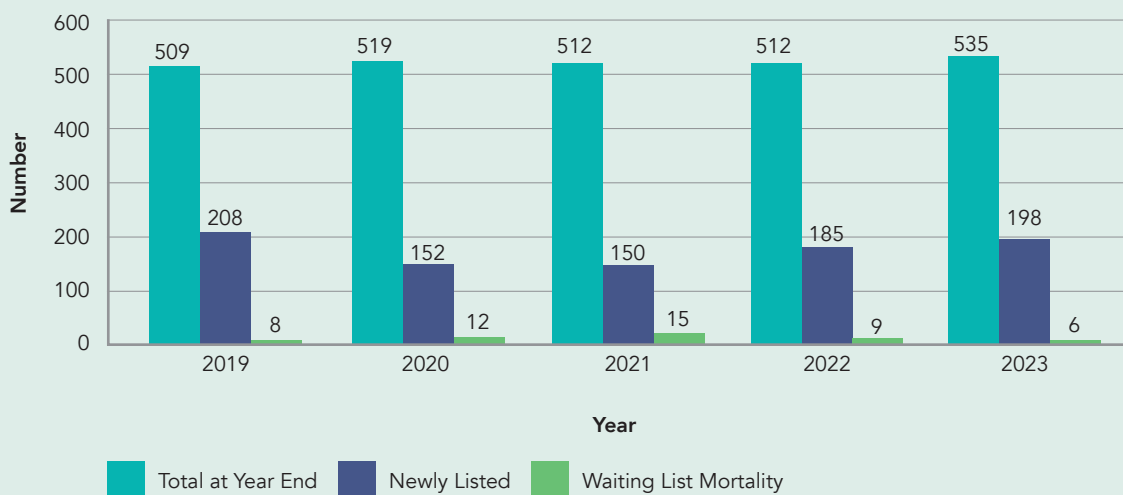
Figure 11: Kidney Transplants 2019-2023



Source: National Kidney Transplant Service Beaumont Hospital

Kidney Transplant Waiting List 2019 – 2023

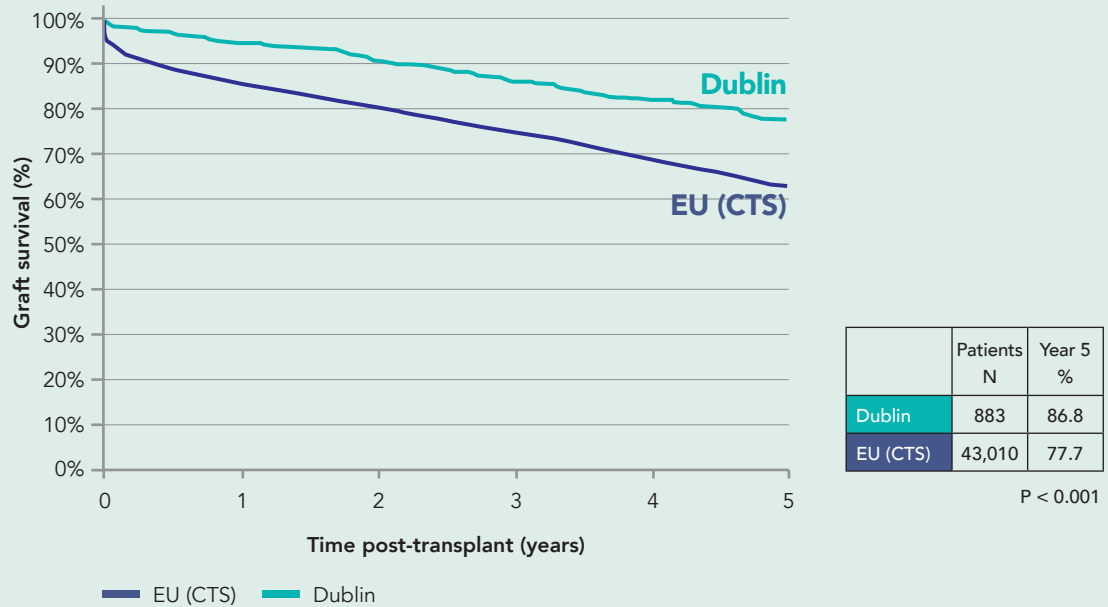
Figure 12: Kidney Transplant Waiting List 2019 – 2023



Source: National Kidney Transplant Service Beaumont Hospital

First Adult Kidney Only Transplant 2012 – 2021

Figure 13: Comparative UK/ EU data on deceased donor 1st kidney only transplant graft % survival per year for 2013– 2022



Source: Beaumont Hospital (Collaborative Transplant Study (CTS) Heidelberg)

Survival Post Kidney Allograft Transplant

Figure 14: Adult First Deceased Donor allograft 2013 – 2022

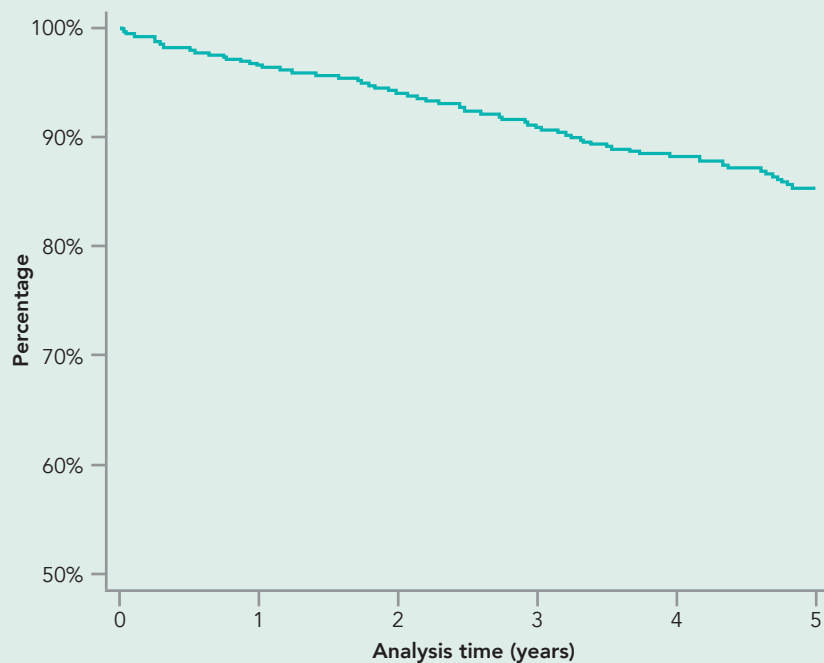
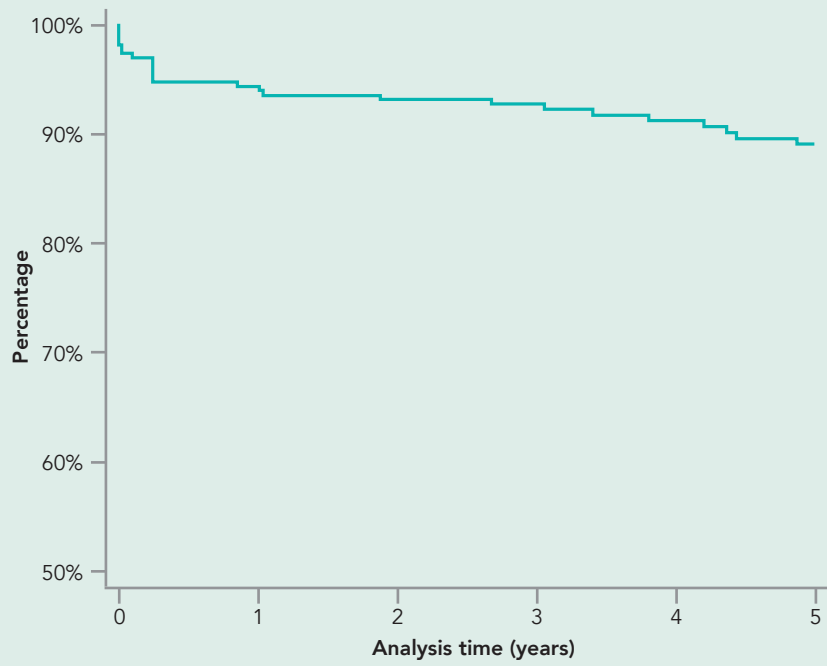


Figure 15: Adult First Living Donor Kidney Allograft Survival 2013 – 2022



<http://www.beaumont.ie/Kidneycentre-annualreport2023>

National Liver Transplant Service, St Vincent's University Hospital

The National Liver Transplant Programme began in January 1993, and was officially opened in October 1993 by Mr Brendan Howlin, the then Minister for Health and Children. Over the years, St Vincent's University Hospital has successfully performed 1,374 Liver Transplants.

In 2023, we proudly celebrated the 30 year anniversary of our ground-breaking liver transplant programme with a special Patient Liver Transplant Informational Day held in UCD. This event was not only a celebration of our remarkable journey but also a testament to our commitment to excellent patient outcomes, the impact of organ donation and the importance of leading healthy lives post-transplant. The event had over 600 attendees, including transplant patients and all staff associated with the Liver Transplant Programme. The agenda included discussions on the history of the Liver Transplant Unit, post-transplant tips and advice, the patients' perspective from both liver transplant recipients and patients support groups and a glimpse into the future of Liver transplantation. It was emotional and impactful day that showcased the transformative power of organ donation, our focus on patient education and support and the remarkable progress we have made in liver transplantation.

The National Liver Transplant Programme in SVUH serves patients from all over Ireland. Led by a multidisciplinary team of healthcare professionals specialising in liver disease and liver surgery including transplantation. Our comprehensive approach has led to an increased rate of referral for consideration for liver transplantation. Our success rates align with the best achieved in UK and European centres.

In addition to the transplant programme, we also have a dedicated Fellowship Programme established in 2012 by Mr Emir Hoti, Director of the National Liver Transplant Programme. So far, it has been completed by 22 surgical fellows from 12 international countries. The programme offers the opportunity to participate in all aspects of adult liver/pancreas procurement and transplantation. It holds the distinction of being the first fellowship programme in Europe accredited by the International Hepato-Pancreato-

Biliary Association (IHPBA) and it is also accredited by the Transplant Division of the European Union of Medical Specialists (UEMS).

Our Liver Transplant Programme regularly holds academic conferences, such as the recent Critical Care Liver Failure and Transplant at the College of Anaesthetists. These conferences bring together medical, surgical and anaesthetic professionals to discuss various aspects of liver transplantation, from pre-transplant to post-transplant care and the best management practices.

For our patients, we have a dedicated transplant ward called St Brigids. This ward provides comprehensive care for both pre and post-transplant patients throughout their journey. St Brigids ward offers modern infrastructure, including single occupancy en-suite rooms with hepa-filtration for our immunocompromised transplant patients. It also houses a High-Dependency unit, ensuring the highest quality in critical care to our post-transplant patients. Our highly qualified staff in St Brigid's ward develop enduring relationships with our patients, supporting them through every step of their transplant experience.

SVUH's Liver Transplant Programme is supported by a dedicated team of Hepatology Consultants, Transplant Surgeons, Transplant Anaesthetists and Transplant Coordinators. Our Transplant Coordinators play a vital role in guiding patients and their families through transplant assessment process, offering essential support and detailed education. They act as the patients' dedicated point of contact throughout their entire transplant journey, ensuring a personalised and seamless experience.

In 2023 we performed 46 Liver transplants, including 42 elective cases and 4 super-urgent cases. As the de facto National Liver Cancer Centre, SVUH provides comprehensive treatment for hepatocellular carcinoma (HCC) and cholangiocarcinoma (CCA). Our range of treatments includes interventional radiology procedures such as radio frequency ablation (RFA), transarterial chemoembolization (TACE) and radioembolization as well as other oncological

therapies and access to clinical trials. These treatment options are all employed and serve as a bridge to transplantation for patients with HCC and CCA.

It is worth highlighting that SVUH is the only European Centre with an established transplant programme for Cholangiocarcinoma, following the Mayo protocol. Additionally, our Liver Transplant Programme provides transplant options for other liver cancers, including metastatic liver disease for Neuroendocrine Tumours (NETs) or for hepatic epithelioid hemangioendothelioma.

Furthermore, our Liver Transplant Programme at SVUH collaborates closely with other transplant centres, enabling a successful multi-organ transplants such as liver/lung and heart/liver combinations. We recognise the importance of interdisciplinary collaboration in complex cases, and as part of this commitment, our unit is actively collaborating with the transplant unit at Beaumont Hospital to develop a comprehensive protocol for patients requiring both liver and kidney transplants. This collaborative effort aims to optimise patients' outcomes and ensure seamless coordination of care for individuals with multiple organ needs.

Looking towards the future, the SVUH Liver Transplant Programme has a strategic vision for expansion in collaboration with the Health Service Executive (HSE), Organ Donation and Transplant Ireland (ODTI) and National Cancer Control Programme (NCCP). Our plan is to strategically grow the programme over the next 5- 10 years,

which will require significant investment in both clinical services and infrastructure.

To support this expansion, we envision the establishment of a dedicated unit at SVUH, for organ transplantation. This unit will provide essential additional capacity in areas such as theatres, ICU and St Brigids High-Dependency Unit (HDU). Simultaneously, we plan to advance a Donation after Circulatory Death (DCD) Programme that incorporates machine perfusion, which would be diligently tracked in a purpose-built transplant database.

In terms of clinical expansion, investment in critical team positions for Transplant will enable increased organ retrieval, including the implementation of the DCD programme and the introduction normothermic machine perfusion as a novel technology for organ preservation.

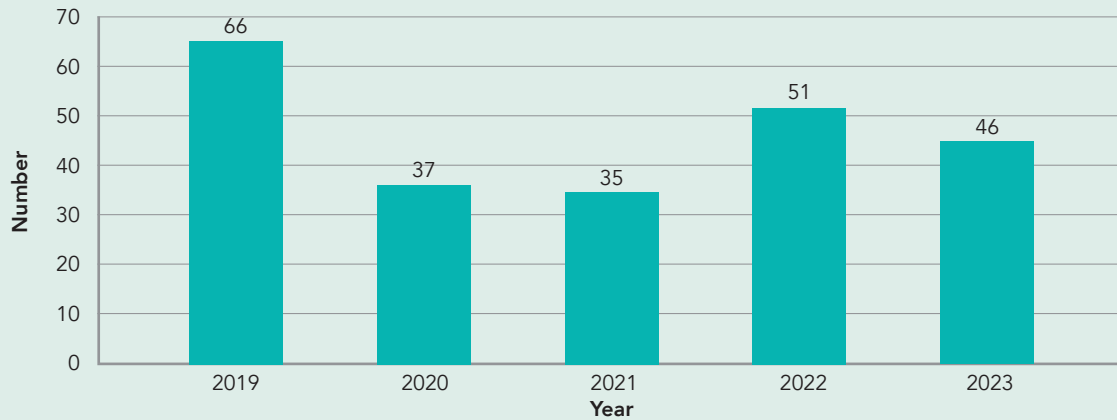
Expanding our outreach clinics across Ireland will also broaden the pool of eligible transplant patients, ensuring that more individuals have access to life-saving treatments.

By fulfilling these crucial requirements and embracing our strategic vision for expansion, the SVUH Liver Transplant Programme will be able to provide treatment to a larger volume of patients and maximise the utilisation of organ offers.

Prof Emir Hoti
Consultant Hepatobiliary Liver Surgeon
National Liver Transplant Centre
St Vincent's University Hospital

Liver Transplants 2019 – 2023

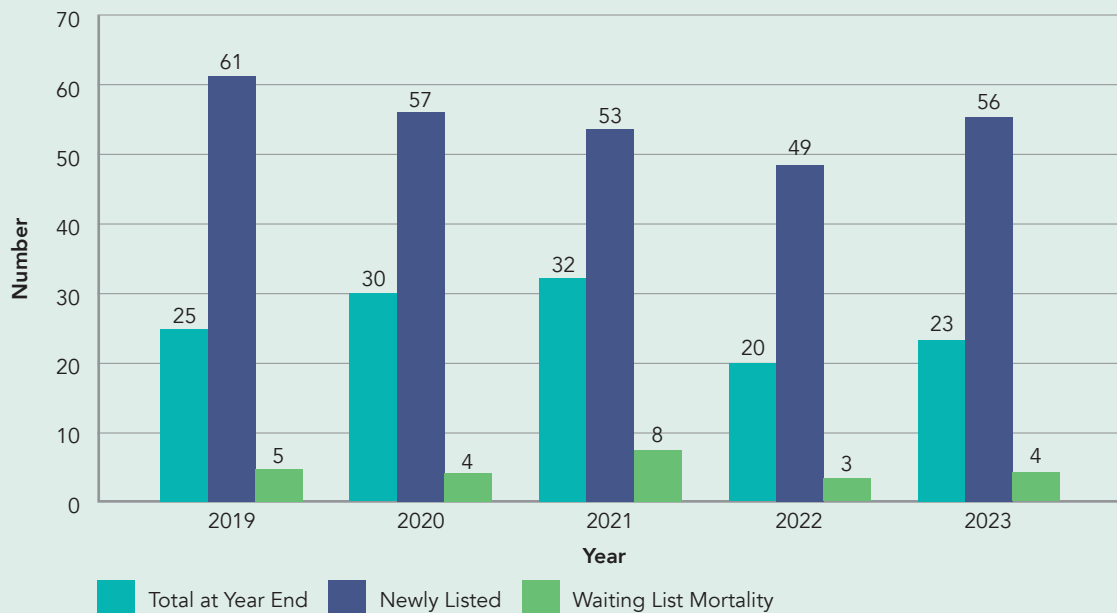
Figure 16: Liver Transplant 2019 - 2023



Source: National Liver Transplant Centre, St Vincent's University Hospital

Liver Transplant Waiting List 2019 – 2023

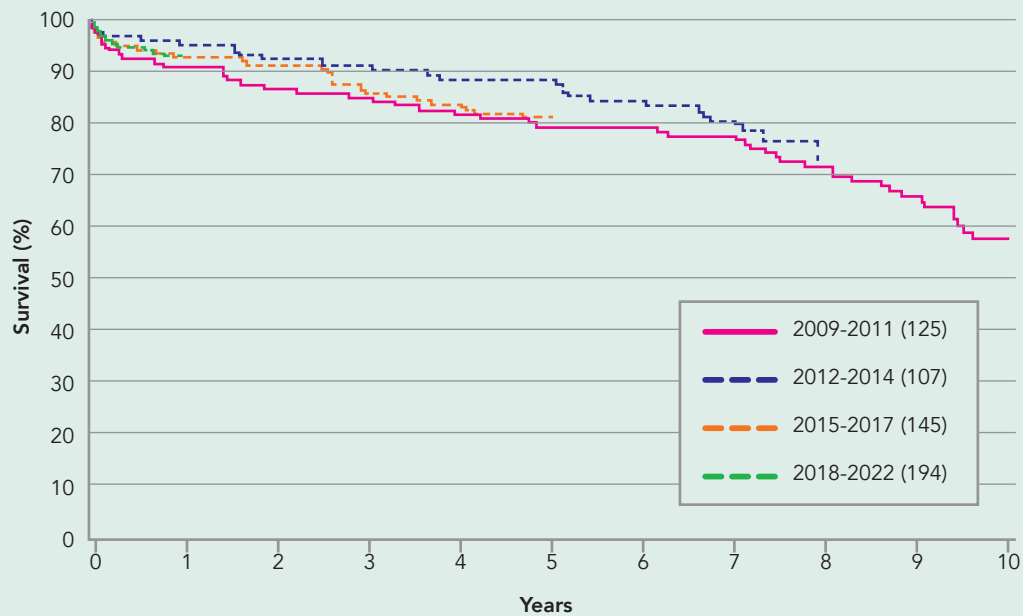
Figure 17: Liver Transplant Waiting List 2019 – 2023



Source: National Liver Transplant Centre, St Vincent's University Hospital

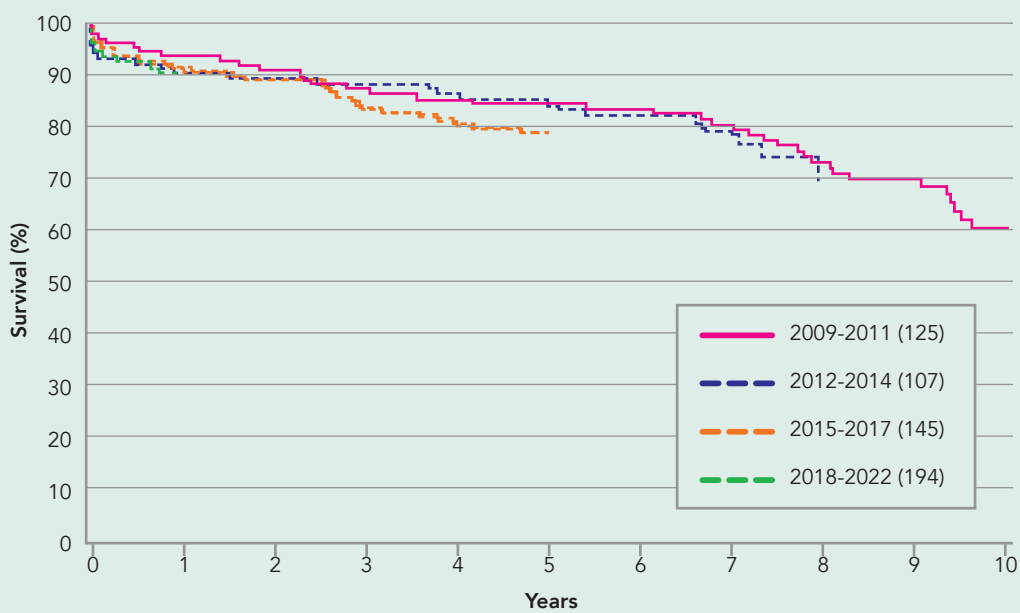
Survival Post Liver Transplant

Figure 18: Long-term patient survival after first elective adult liver only transplants from DBD donors, 1 January 2009 – 31 December 2022



Source: National Liver Transplant Centre, St Vincent's University Hospital

Figure 19: Long-term graft survival after first elective adult liver only transplants from DBD donors, 1 January 2009 – 31 December 2022



Source: National Liver Transplant Centre, St Vincent's University Hospital

Table 3: Patient survival after first elective adult liver only transplant from a DBD, 1 January 2009 - 31 December 2022

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2009-2011	125	91 (85-95)	87 (80-92)	80 (71-86)	58 (48-67)
2012-2014	107	95 (89-98)	93 (86-96)	89 (81-93)	
2015-2017	145	93 (88-96)	92 (86-95)	82 (74-87)	
2018-2022	194	93 (89-96)			
Log-rank p value		0.6754	0.3096	0.1700	

Table 3 show patient survival estimates, respectively, at one, two, five and ten years post-transplant.

National Pancreas Transplant Service, St Vincent's University Hospital

Pancreas Transplantation initially commenced in Beaumont Hospital, Dublin in 1992 with a total of 147 pancreas transplants performed over 22 years with majority of these transplants being simultaneous pancreas and kidney transplants (SPK) but a small number were pancreas after kidney (PAK) or pancreas transplants alone (PTA).

The National Pancreas Transplant Programme was then established in St Vincent's University Hospital (SVUH) in 2016. The surgical teams from Beaumont Hospital and SVUH work closely together, in SVUH, to carry out the SPK transplants. Since the programme was established in SVUH, 30 simultaneous pancreas and kidney transplants and 3 Pancreas after kidney transplants have been performed.

Pancreas transplantation is a highly specialised procedure that was first performed in the USA in 1966 with the objective of replacing the need for insulin therapy in people with Type 1 Diabetes Mellitus (T1DM). Over the years there has been huge strides in innovative surgery in this field leading to simultaneous pancreas-kidney (SPK) transplantation in combination with the development of new immunosuppressive therapy. This therapy is now widely accepted as an optimal therapeutic option for highly selected patients with type 1 diabetes mellitus (T1DM) and end-stage renal disease.

The National Pancreas Transplant Programme in SVUH has clear guidelines on how to refer a patient for discussion. It starts with the completion of the National Referral form for Pancreas/Simultaneous Pancreas Kidney Transplant, completed by the potential recipient's local nephrology or endocrinology team. The referring team must also ensure that all required relevant test results are included.

SVUH provides a Consultant led Pancreas Transplant Service for those patients with Type 1 Diabetes. Mr Tom Gallagher, Ms Fiona Hand, Dr John Holian and Dr Aisling O'Riordan are the Consultant leads. Patients who require a simultaneous pancreas and kidney transplant are cared for in SVUH by a multi-disciplinary team which combines the expertise of the surgical team and nephrologists in SVUH with the renal transplant team from Beaumont Hospital.

Once this National Pancreas referral is received in SVUH, it will be triaged by the dedicated transplant coordinators and an out-patient appointment will be sent out to the patient accompanied by a schedule for some additional tests. Following this appointment and once the additional tests are completed, the patient is discussed at the pancreas transplant multidisciplinary Team meeting (MDT). The outcome of this meeting will be communicated to both the patient and the referring Consultant.

If a decision is made that the patient is suitable for a pancreas transplant, they will then be officially added to the waiting list. All patients being listed for transplant attend a patient information and consent day with their family members or support person, facilitated by both Transplant Coordinators and Surgeons. This contributes to the formal and informal educational opportunities provided to this client group, in order that they gain a clear understanding of pancreas and kidney transplant, including the potential risks and benefits and the role they need to play to support their care and empower their decision making. A procedure specific consent form is used to document their decisions in consultation with the transplant team.

The Transplant coordinators guide the patients at every step of their transplant journey, through assessment, whilst on the waiting list for a suitable organ (in conjunction with their referring hospital), transplantation and post-operative follow up.

To date more than 100 patients have been referred for consideration for pancreas and kidney transplant. Almost two-thirds of these have been presented and listed for simultaneous pancreas and kidney transplant with the remainder being considered for kidney transplant alone or pancreas after kidney transplant. The main cohort of patients are under 50 years of age and have been referred from all over Ireland.

While on the waiting list patients are managed in their local referral unit with an annual review in SVUH. However, patients are contacted on a regular basis by phone to maintain an up to date record of their condition and complications and the transplant team liaises closely with the referring team.

Our National Pancreas Transplant Programme conducts regular academic conferences including The 1st National Simultaneous Pancreas and Kidney Study Day that was hosted by our Director of Pancreas Transplant, Mr Tom Gallagher and the Pancreas Transplant coordinators in October 2023 in SVUH.

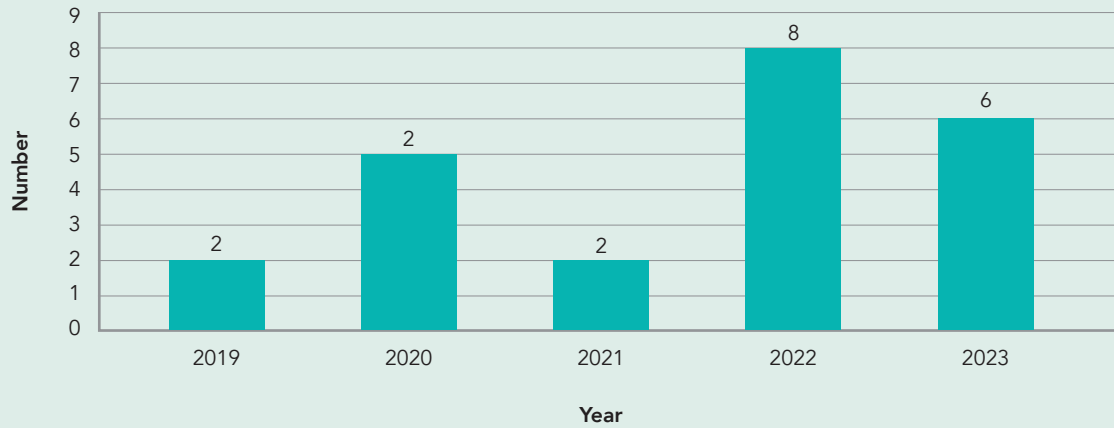
This inaugural study day saw an exceptional team of experts, clinicians, coordinators and patients come together to enable an understanding of the benefits of a holistic approach to SPK. The inspiring words of the Director on the day demonstrated its importance, "In medicine, collaboration is not just a choice; it's the cornerstone of ground breaking advancements. Today, we've witnessed the power of unity in knowledge, minds working harmoniously toward a common goal. Let this event be a testament to the impact of shared expertise. Congratulations to all involved for creating a legacy of collaboration that transforms lives."

We strive to build awareness of Pancreas Transplant through highlighting it with regular in-hospital information stands and SVUH social media platforms. We remain forever grateful to the continued selfless generosity of donors and donor families.

Mr Tom Gallagher
Hepato-Pancreato-Biliary and
Liver Transplant Surgeon
Pancreas Transplant Centre
St Vincent's University Hospital

Pancreas Transplants 2019 – 2023

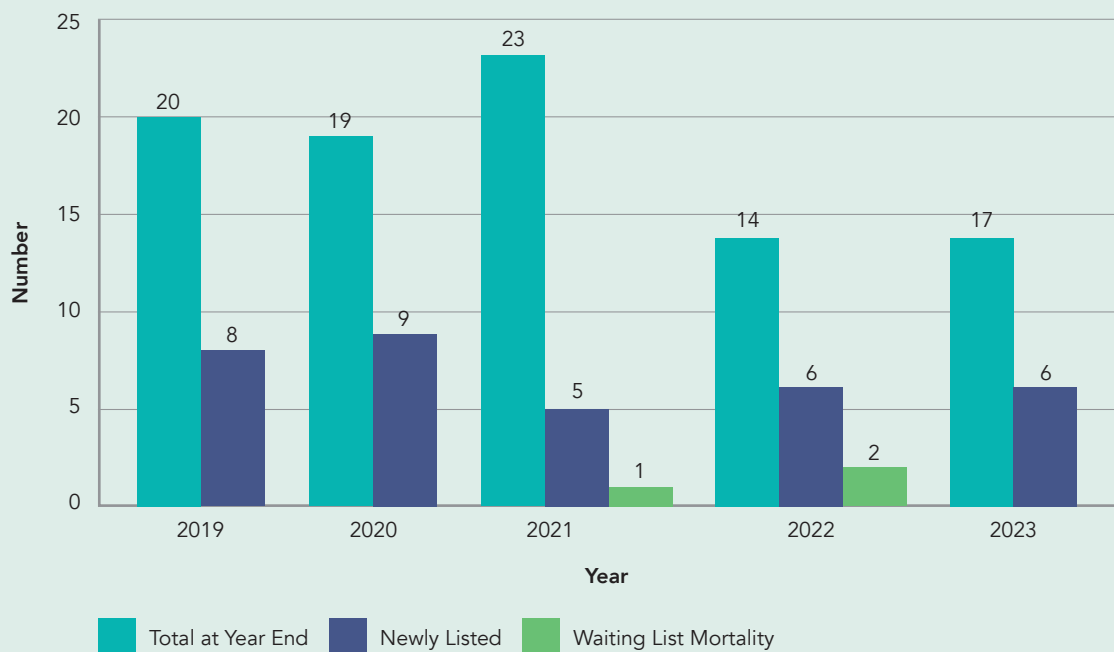
Figure 20: Pancreas Transplants 2019 – 2023



Source: National Pancreas Transplant Centre, St Vincent's University Hospital

Pancreas Transplant Waiting List 2019 – 2023

Figure 21: Pancreas Transplant Waiting List 2019 – 2023



Source: National Pancreas Transplant Centre, St Vincent's University Hospital

National Heart and Lung Transplant Service, Mater Misericordiae University Hospital

The global pandemic saw a significant reduction in transplantation across all organs. Given the scarcity of information there was reluctance to use organs, especially thoracic, from a donor with a recent history of Covid-19. Fortunately, the international transplant community have developed evidence based guidelines to better inform us when making decisions around these donors. We are very appreciative to hospitals around Ireland that have performed testing on these patients to facilitate organ donation. Both patients on the active waiting list and those post-transplant have kept up with their Covid-19 vaccine schedule to minimise their risk during this time.

Heart transplantation is the best treatment for a select group of patients with advanced heart failure. The primary aim is improved survival. With better organ preservation and immunosuppression, the median life expectancy after surgery is now approximately 14 years. The incidence of heart failure is increasing, but we are limited by the availability of suitable donor organs. The first Irish heart transplant was performed on the 10th of September 1985 in the Mater Misericordiae University Hospital. There have been 432 heart transplants performed in Ireland up to 31st December 2023. Last year there were 6 patients on the active heart transplant waiting list and 11 patients newly listed in 2023. The median time on the active heart transplant waiting list in 2023 was 391 days. We had one death on the heart transplant waiting list last year. In 2023 we performed 5 heart transplants which is a reduction from our pre-pandemic numbers of 15-18.

It is well recognised that heart failure is one of the major chronic diseases in Ireland, affecting up to 2% of the adult population. Our heart failure team have visited hospitals around the country to speak to medical and nursing staff on recognising heart failure, optimising management and the referral pathway. In November of 2023 we hosted an advanced heart failure study day which was very well attended by heart failure nurses from around the country. They were taken through the patient journey from referral to assessment and transplantation. We had one patient post heart

transplant and another post Left Ventricular Assist Device (LVAD) speak on the patient's perspective. Through industry funding we have a dedicated heart failure fellow. Long term we hope our initiatives will improve recognition of heart failure in cardiology departments around the country and prompt more patient referrals.

Lung transplantation is offered to patients with advanced lung disease to improve their survival and quality of life. The median life expectancy after surgery is 6.3 years and varies by recipient age, ischemic time and presenting diagnosis. The first lung transplant in Ireland was performed in the Mater Hospital in May 2005. There have been 360 lung transplants performed in Ireland up to 31st December 2023. There were 24 patients on the lung transplant waiting list and 27 patients newly listed in 2023. The median length of time on the lung transplant waiting list was 185 days. There were 4 deaths on the lung transplant waiting list. There were 19 lung transplants carried out in 2023 (14 single and 5 double) which is still reduced compared to our pre-pandemic numbers of 28-30.

The imbalance between the number of patients waiting for donor organs and the availability contributes to the waitlist mortality for both heart and lung potential recipients. We are keenly aware that our transplant numbers have not returned to our pre-pandemic levels, last year we worked on several strategies to address this. Firstly, we have developed an online referral form for heart and lung transplant as well as LVAD's. They have been designed to streamline the process for potential recipients. They also serve as a reference point on clinical trigger points for referral. Our medical transplant physicians are available to referring physicians who have any questions about the process.

Secondly, in line with international best practices, and to increase the organ donor pool, we are accepting donation from Hepatitis C positive organ donors. In consultation with our wider MDT colleagues a hospital protocol has been developed. A patient information leaflet has supported the education of our potential

recipients on this matter. We hope that this endeavor will increase conversion of organs that would have otherwise been declined. The National Virus Reference Laboratory (NVRL) have expanded their Nucleic Acid Testing (NAT) capacity. This combined with a donor's serology results and will better inform us on the risk of Blood Borne Virus infection. Previously donors with recent iv drug use could not be considered. Our transplant policy for increased risk donors is supported by a patient information leaflet. This is our third initiative to increase the organ donor pool and reduce our wait-list mortality.

Patients survival with Cystic Fibrosis (CF) has improved greatly over the last number of years with the introduction of the new CFTR modulator drugs, reducing the need for lung transplant and delaying the need for others with the drug introduction. However, we continue to be referred patients who have high complex care needs to our center and we look after patients post lung transplant with CF for years at the MMUH. The National Model of Care for CF and Lung Transplantation was released by the HSE in 2022 and recommended that the Mater Hospital have its own dedicated CF center looking after the specific needs of patients post lung transplant. Through the modernised care pathway initiative the MDT members have been recruited and they will be in place from the summer 2024, delivering and supporting people with CF post lung transplant at the MMUH.

This year we are not submitting information on survival after heart and lung transplantation. We have reviewed the previously used sources of this information and cannot guarantee the integrity of the data. We do not currently have a transplant database to record our clinical outcomes after

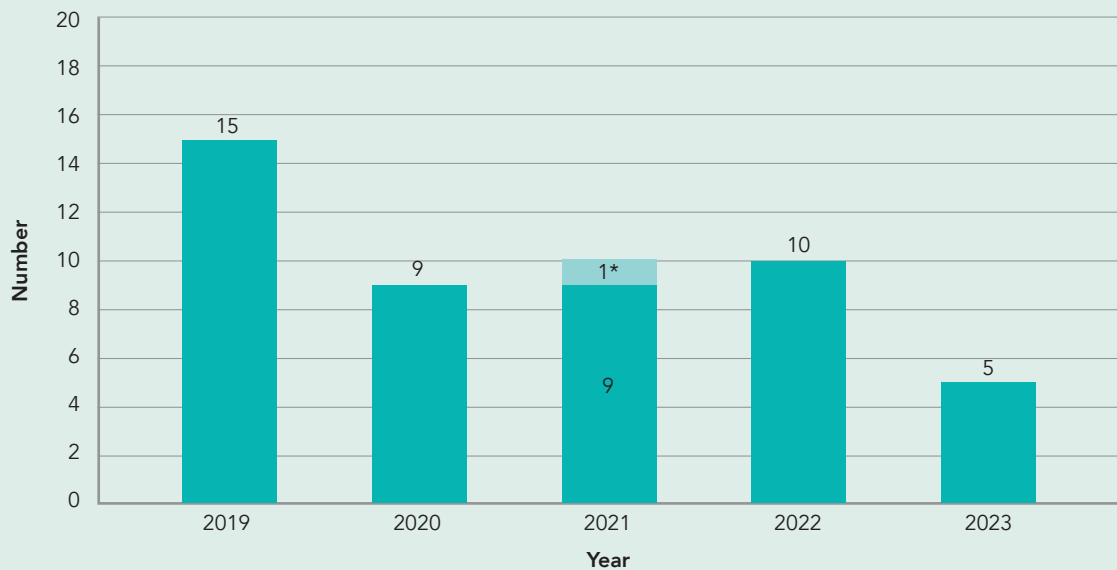
surgery or a dedicated data manager. As clinicians' patient safety and quality of care has always been paramount. We are exploring multiple avenues to have this deficit in our program filled.

Last year saw the launch of the donated organ electronic offering system, iTransplant. This has been a welcome initiative in streamlining the donation process which can be very lengthy both for donor families and their respective medical teams. It has been an important step in reducing the risk of transcription errors and some of the call burden from the transplant coordinators. The success of any transplant program is dependent on the hard work of the donor hospitals medical and nursing staff. Their identification and management of potential donors is crucial. It is difficult to broach the topic of organ donation with a recently bereaved family. On behalf of the transplant team within the Mater Hospital I would like to extend my sincere appreciation to all of the donor families. Our transplant recipients are very grateful that you chose to consider giving the Gift of Life

Ms Aisling Kinsella
Responsible Person for Heart and Lung
Transplantation
Consultant Cardiothoracic and
Transplant Surgeon
Mater Misericordiae University Hospital

Heart Transplants 2019 – 2023

Figure 22: Heart Transplants 2019 – 2023

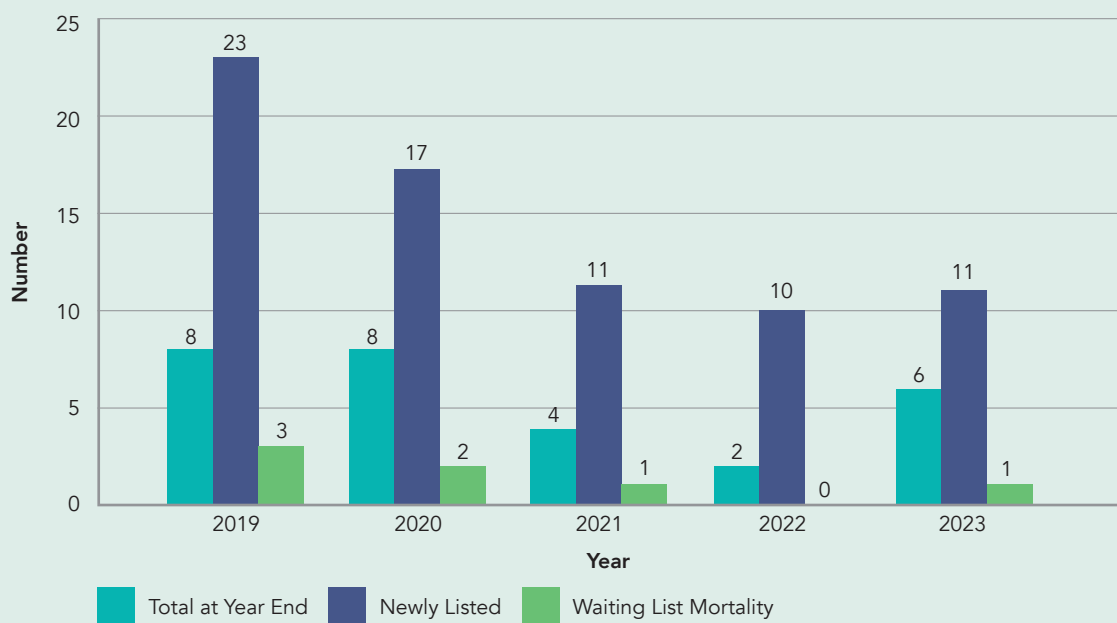


*CHI Crumlin

Source: National Heart and Lung Centre, Mater Misericordiae University Hospital

Heart Transplant Waiting List 2019 – 2023

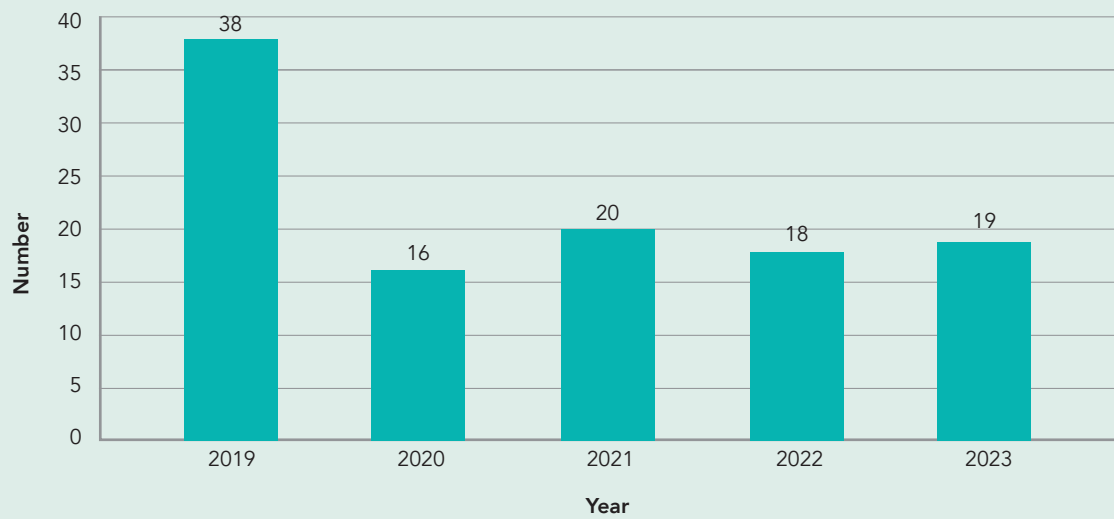
Figure 23: Heart Transplant Waiting List 2019 – 2023



Source: National Heart and Lung Centre, Mater Misericordiae University Hospital

Lung Transplants 2019 – 2023

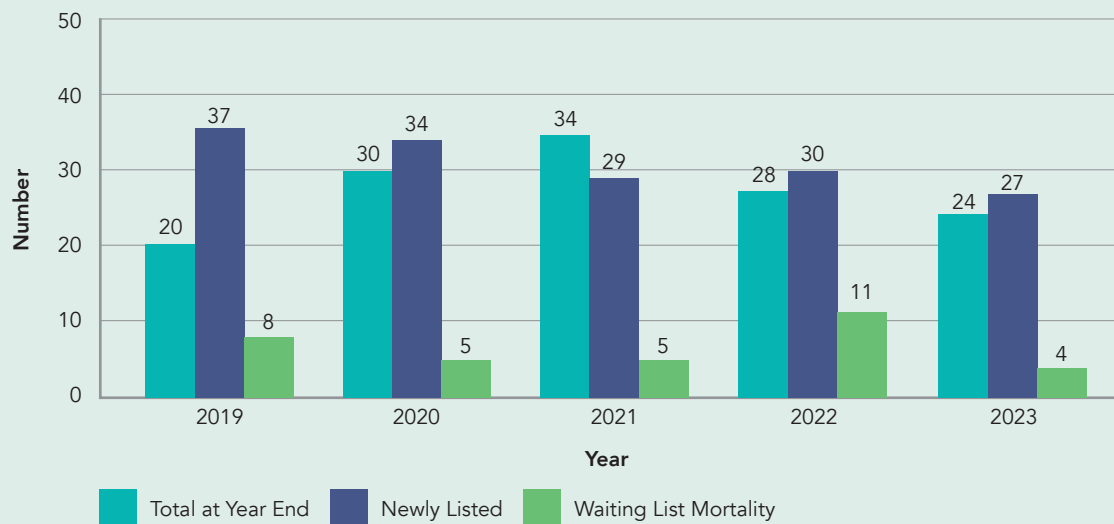
Figure 24: Lung Transplants 2019 – 2023



Source: National Heart and Lung Centre, Mater Misericordiae University Hospital

Lung Transplant Waiting List 2019 – 2023

Figure 25: Lung Transplant Waiting List 2019 – 2023

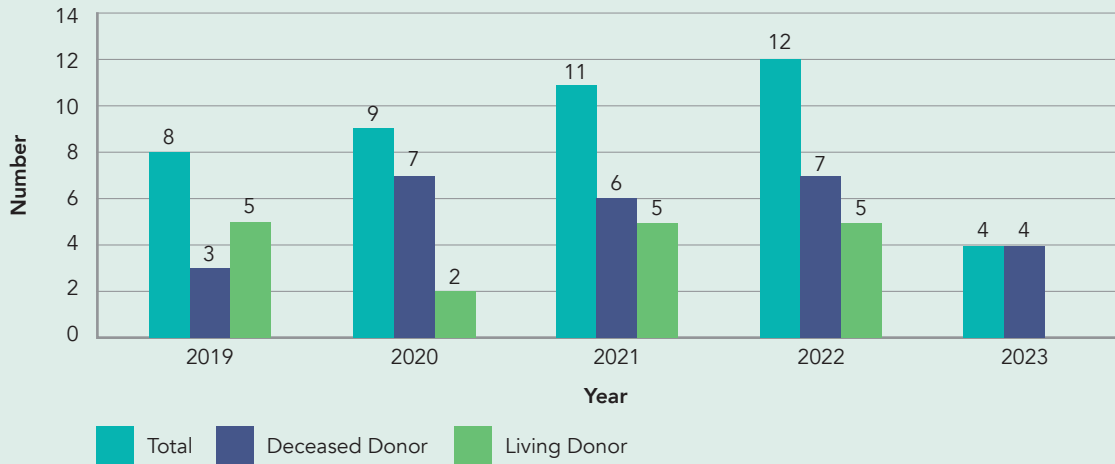


Source: National Heart and Lung Centre, Mater Misericordiae University Hospital

Paediatric Transplant Activity

Paediatric Kidney Transplant 2019 – 2023

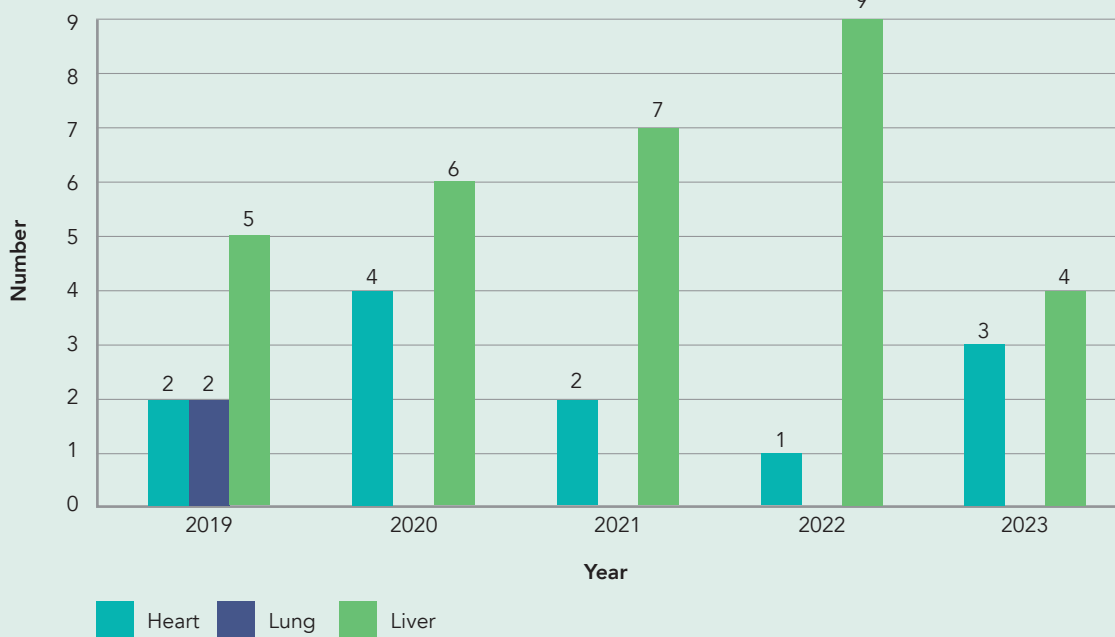
Figure 26: Paediatric Kidney Transplant in Ireland (<19yrs at time of transplant) 2019 – 2023



Source: National Renal Transplant Centre, Beaumont Hospital

Irish Paediatric Transplants performed in the UK

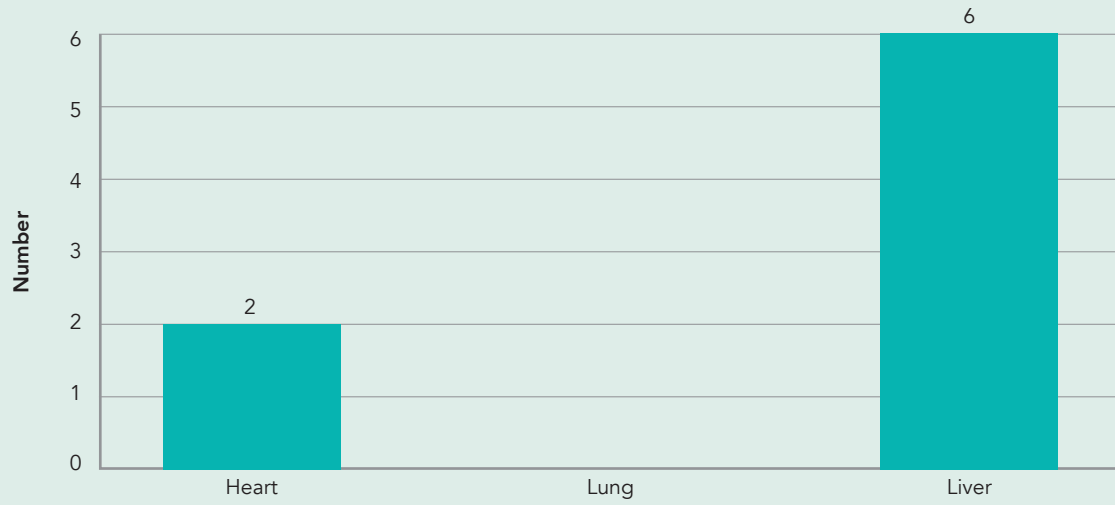
Figure 27: Irish Paediatric Patient Transplants performed in the UK 2019 – 2023



Source: CHI Crumlin, HSE Cystic Fibrosis Centres

Irish Paediatric waiting List UK End of December 2023

Figure 28: Irish Paediatric waiting List UK End of December 2023



Source: CHI Crumlin, HSE Cystic Fibrosis Centres

Quality and Safety

ODTI Quality Management System

The ODTI Quality Management function was fully established in 2023. In early 2023 Ms Claire Dalton was appointed as the Quality and Biovigilance Manager for ODTI. The Quality function is supported by the Systems Administration team for the introduction of continuous improvement initiatives. The following is a summary of the high objectives achieved in 2023 for the ODTI:

- Establishment of Formal Quality Management System Function
- Development and Acceptance of ODTI Quality Strategy
- Recruitment of Quality / Biovigilance Manager
- Development of Biovigilance Process in line with Chapter 16 of EDQM
- Development of Initial QMS Processes
- Membership of NODTAG
- Qualification / Implementation of Electronic Offering System (EOS) for the NOPS service
- Membership of European Vigilance Expert Subgroup (VES) and Lead Participation in the SANTE SOHO SARE Pilot across Europe
- Publication of the Guideline Documents through NODTAG
- Establishment of National Quality Manger forum for Quality and Safety in Organ Transplantation
- Establishment of National Competent Authority Forum with the HPRA

Systems Administration

Established in 2022 to facilitate the implementation of systems in ODTI and Transplant Services generally, the ODTI Systems team have developed a set of procedures and practices through their work on the four systems for which they have responsibility. The implementation of these systems is conducted with a focus on the principles and best practices of data governance, emphasising the quality, confidentiality, accuracy, integrity, and availability of systems throughout their life-cycles.

Electronic Offering System (EOS)

The Electronic Offering System (EOS), went live in September 2023 in the the National Organ Procurement Service. The previous months involved the specification, configuration, customisation, and validation of the EOS, as well as extensive training and preparation for staff involved. This represents the first stage of ODTI's move to electronic systems and replaced the manual recording of the organ procurement process.

Opt-out Register

On 2nd May 2019, the Department of Health published the General Scheme of The Human Tissue Bill 2024. This Bill aims to regulate the handling of human tissue from deceased persons and establish conditions for organ and tissue donation from both deceased and living persons. It will introduce an Opt-out consent system for organ donation and mandates the creation of an Opt-out register managed by ODTI. This register will allow adults to record their objection to organ donation. The development of the opt-out register application is in the final stages.

Q-Pulse

The Q-Pulse Quality Management System went live at NOPS in January 2023, providing NOPS with an electronic Document Management System. Prior to its introduction, ODTI systems provided NOPS with configuration, training and validation services. An equivalent system, for use in the Quality System in ODTI, is currently being specified.

Transplant Centre Management System in the National Kidney Transplant Service

ODTI is supporting the implementation of a system for the management of the National Kidney Transplant Service (NKTS). This initiative is building on progress made with EOS towards electronic data management systems and strengthened business intelligence capability. The system shall be provided by the suppliers of ODTI's EOS. After a series of scoping workshops in July 2023, the system has now been fully specified, with customisation, configuration, validation, and training to be conducted in 2024.

National Organ Procurement Services (NOPS) Quality and Safety

Quality is a fundamental pillar of National Organ Procurement Service mission to provide safe and effective organ donation and transplant services. We are committed to ensuring the highest standards of quality safety throughout our processes, from the referral of potential donors to the allocation of organs to transplant centres. A dedicated team of professionals work to ensure that every step of the process meets or exceeds the regulatory requirements. We strive for continuous improvement and invest in innovative technologies and training programs to enhance our capabilities and deliver the best possible outcomes.

Continuous Improvement

We have worked to optimise communications and collaboration with hospitals, transplant centres, and other stakeholders. As we look ahead, we remain dedicated to pursuing ongoing improvement in all aspects of our work to better serve those in need of life-saving organ transplants.

NOPS continuous improvement plan is to move the manual quality management system in relation to non-conformances, complaints, change controls, internal audits and retrospective information processes to the Q Pulse system. In the interest of efficiency, the team will adopt the principles of Lean Six Sigma methodology to all quality and clinical process changes.

NOPS Quality Review

NOPS quality reviews are conducted by the NOPS quality management team on a bi-annual basis. These are an essential part of ensuring that NOPS provide high-quality services that support the critical mission of saving and improving lives through organ donation and transplantation.

The quality review examines key performance indicators, such as trends associated with non-conformances, change controls requests, retrospective information and complaints received. The goal of the review is to identify areas for improvement and to promote best practices in organ donation.

Acknowledgements

Acknowledgment is necessary to the continued support of the ODTI team, inclusive of National Organ Procurement Service (NOPS), Organ Donor Nurse Managers (ODNM), Clinical Leads in Organ Donation (CLOD) and administrative support staff who work collectively to ensure the smooth delivery of the service.

National Organ Donation and Transplant Advisory Group (NODTAG)

NODTAG is the clinical advisory group to the ODTI which provides governance, recommendations and sets direction for the office. NODTAG comprises the following members.

Mr Andrew Conlon (Jan - March 2023)

Principal Officer
Department of Health

Professor Jim Egan (Jan - Oct 2023)

Director Organ Donation Transplant Ireland
Chair NODTAG (Stepdown Oct)

Dr Alan Gaffney

Clinical Lead in Organ Donation,
Beaumont Hospital,
RCSI Hospital Group

Ms Martina Goggin

Patient and Public Interest Representative

Mr Paul Hendrick

Director of Quality, ODTI

Mr Emir Hoti

Consultant Hepatobiliary Liver Transplant Surgeon
National Liver Transplant Centre
St Vincent's University Hospital

Mr Hossein Javadpour (Stepdown Jan - Sept)**Ms Aisling Kinsella (from Sept - Dec)**

Consultant Cardiothoracic Surgeon
National Heart and Lung Transplant Centre
Mater Misericordiae University Hospital

Professor Mary Keogan

Consultant Immunologist
Director National Histopathology Immunogenetics
Service for Solid Organ Transplant
Beaumont Hospital

Mr Robert Kidd

Assistant National Director
HSE Acute Operations.

Ms Dilly Little (Stepdown)**Mr Gordon Smyth**

Consultant Renal Transplant Surgeon
National Renal Transplant Centre
Beaumont Hospital

Professor Ross Mc Nicholas

Consultant Gastroenterologist,
St Vincent's University Hospital

Dr Catherine Motherway

Clinical Lead in Organ Donation
Former President Intensive Care Society
of Ireland.

Dr Brian O'Brien

Director ODTI
Chair NODTAG (Oct - Dec 2023)

Mr Barry O Dwyer (April - Dec 2023)

Principal Officer
Department of Health

Dr James O'Rourke

Consultant Intensivist
Beaumont Hospital

Dr Carol Traynor

Consultant Nephrologist,
Clinical Director Nephrology, Urology,
Transplant Directorate Beaumont Hospital.

Mr John Walsh

Chief Operations Officer
ODTI

National Organ Procurement Service

Prof Jim Egan, Responsible Person NOPS (Jan - Oct)

Emma Corrigan, Donor Coordinator

Lynn Martin, Donor Coordinator

Jean O'Reilly, Donor Coordinator

Brenda Poole, Donor Coordinator

Elaine Pierce-Kelly, Donor Coordinator (Jan - Nov)

Eimear Shields, Donor Coordinator

Dominic Lozanes, Donor Coordinator (Jan - Nov)

Eimear Dempsey, Donor Coordinator

Jennifer Whelan, Donor Coordinator

Jennifer Hally, Donor Coordinator (Oct - Dec)

Clinical Leads in Organ Donation

Dr Emer Curran, Saolta Hospital Group

Dr Ian Conrick-Martin, Ireland East Hospital Group

Dr Alan Gaffney, RCSI Hospital Group

Prof Ignacio Martin-Loeches, Dublin/Midlands Hospital Group

Dr Catherine Motherway, University of Limerick Hospital

Dr Adrian Murphy, South/South West Hospital Group

Organ Donation Nurse Managers

Bernie Nohilly, University of Limerick Hospital Group

Breda Doyle, South/South West Hospital Group

Gillian Shanahan, Saolta University Hospital Group

Karen Healy, RCSI Hospital Group

Nikki Phillips, Dublin/Midlands Hospital Group

Orla Craddock, Ireland East Hospital Group

Quality Team

Paul Hendrick, Director of Quality

Hilary Barry, NOPS Quality Manager (Jan - June)

Edel Ward, NOPS Quality Manager (Oct - Dec)

Claire Dalton, Quality and Biovigilance Manager

Leah Campbell, Transplant Centre Quality Manager, SVUH

Sinead Cronnolly, Transplant Centre Quality Manager, Beaumont

Davina Shaw, Transplant Centre Quality Manager, MMUH

ODTI / NOPS Operations and Administration Support

Prof Jim Egan, Director (Jan - Oct)

Dr Brian O'Brien, Director (Nov - Dec)

John Walsh, Chief Operations Officer

Kathleen Tyrrell, Senior Administrator

Tara Maguire, Administration Business Lead

Dara Kelly, System Administrator Management

Edel Brennan, System Administrator Management

Caoimhe Flynn, Data and Quality Administrator (Jan - May)

Loveth Nwanze, Data and Quality Administrator (June - Dec)

Medical Clinical on Call

Prof Jim Egan

Dr James O'Rourke

Dr Brian O'Brien

Dr Catherine Motherway

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Organ Donation and Transplant Ireland

Ground Floor, Bridgewater House, Bridgewater Business Centre,
Conyngham Road, Islandbridge, Dublin 8 D08 T9NH

Email: odti@hse.ie • **Website:** www.hse.ie/odti

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