



Dr. D. Y. Patil Vidyapeeth, Pune
(Deemed to be University)

Accredited (3rd Cycle) by NAAC with a CGPA of 3.64 on a four point scale at A++ Grade)
(An ISO 9001: 2015 Certified University)

BEST PRACTICE – 1

Title of the practice: Organ Donation and
Transplant at Dr. D. Y. Patil Vidyapeeth, Pune

Dr. J. S. Bhawalkar
Registrar



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2. Objectives of the practice:

End-stage organ failure affects the kidneys, liver, pancreas, lungs, heart, and other organs. Organ transplantation, whether through living donors or cadaveric donors, is the only viable option for these patients. D.Y. Patil Vidyapeeth (DPU), Medical College Hospital, a tertiary care facility, provides specialized services for organ donation and multi-organ transplants, offering care and treatment to patients with end-stage organ disease.

In the Pune region, there are currently 1,500 patients waiting for kidney transplants, 1,000 for liver transplants, and 100 for heart transplants. Unfortunately, about 60% of patients fall off the waitlist and either die or progress to multi-organ failure due to a shortage of organs. DPU Medical Hospital plays a crucial role in addressing this need with the following objectives:

- Raising public awareness about organ donation.
- Adhering to the norms and policies established by "The Transplantation of Human Organs Act and Rules" and the guidelines from the "National Organ and Tissue Transplant Organization (NOTTO)," "State Organ and Tissue Transplant Organization (SOTTO)," and "Zonal Transplant Coordination Centre (ZTCC)."
- Treating patients with end-stage organ failure through a multidisciplinary transplant department staffed with experienced professionals, utilizing advanced surgical skills to meet intensive care needs for monitoring patients during transplant and post-transplant care.
- Identifying barriers and challenges, developing methods for early detection and resolution of issues, implementing improvement strategies, and regularly assessing and refining outcomes.

3. The Context:

The urgent need for organ donation and transplantation cannot be overstated. Despite established guidelines from central and state authorities, along with numerous public awareness campaigns, misunderstandings, myths, fear, anxiety, and hesitancy persist regarding organ donation. These barriers result in limited organ donations, while many individuals die awaiting transplants. Recognizing this critical issue, DPU has implemented a comprehensive system to support organ donor families, honor their donation wishes, and provide post-donation support, all in accordance with ethical and legal standards.



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DPU has established a Center for Multi-Organ Transplant, featuring the following:

- Institutional Authorization Committee for Organ Donation and Transplant
- Brain Death Committee
- Team of legal advisors
- Experts in advanced multi-organ transplant practices for both cadaveric and living-related transplants in adults and pediatric populations

Key programs include:

- Kidney and Cornea Transplant program (since 2013)
- Liver Transplant program (since 2018)
- Heart and Lung Transplant programs (since 2021)
- Combined Heart & Lung Transplant program (since 2022)

The DPU Organ Transplant facility offers:

- State-of-the-art operation theaters for living donor transplants
- 4th Generation Da Vinci Robotic Surgical System for robotic procedures
- Isolated, highly specialized transplant intensive care units
- Multidisciplinary teams adhering to all transplantation norms
- DPU remains committed to advancing medical practices and promoting a culture of organ donation to save lives and improve health outcomes.

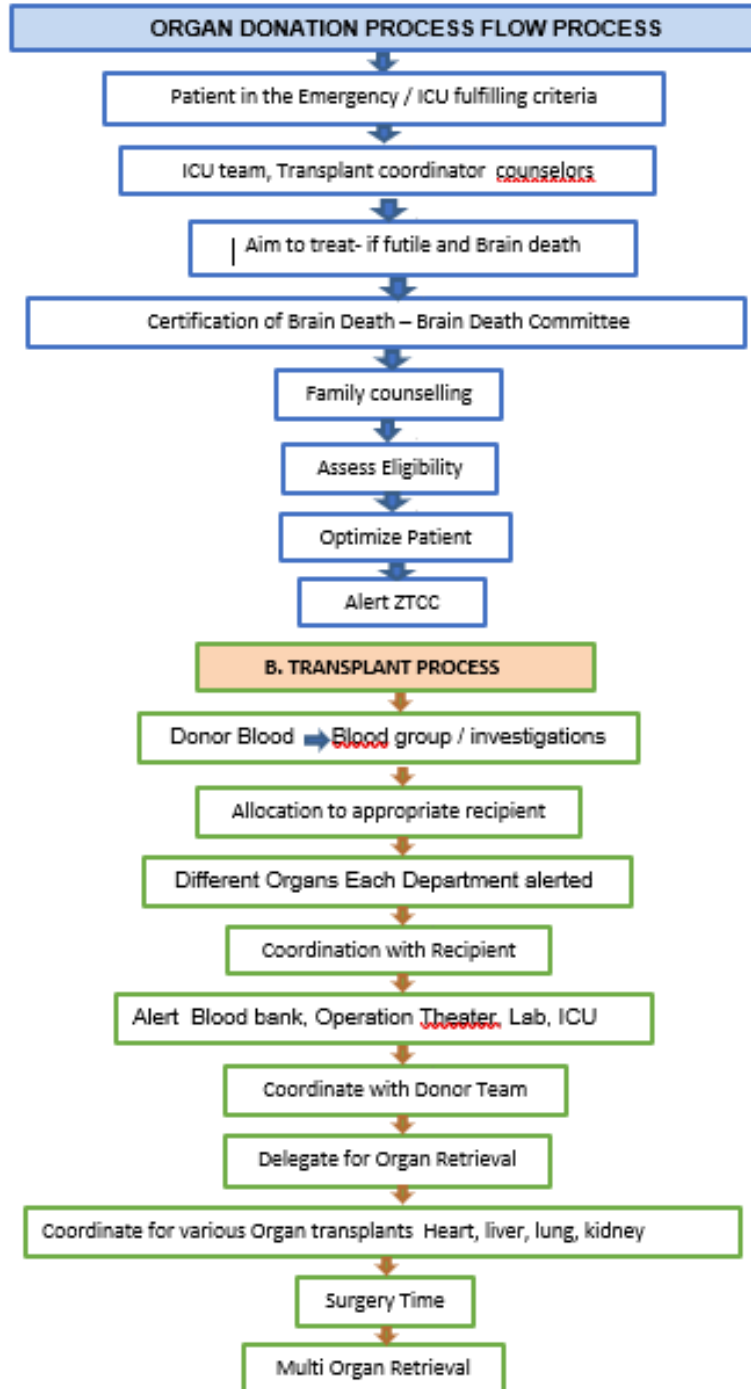
4. The Practice:

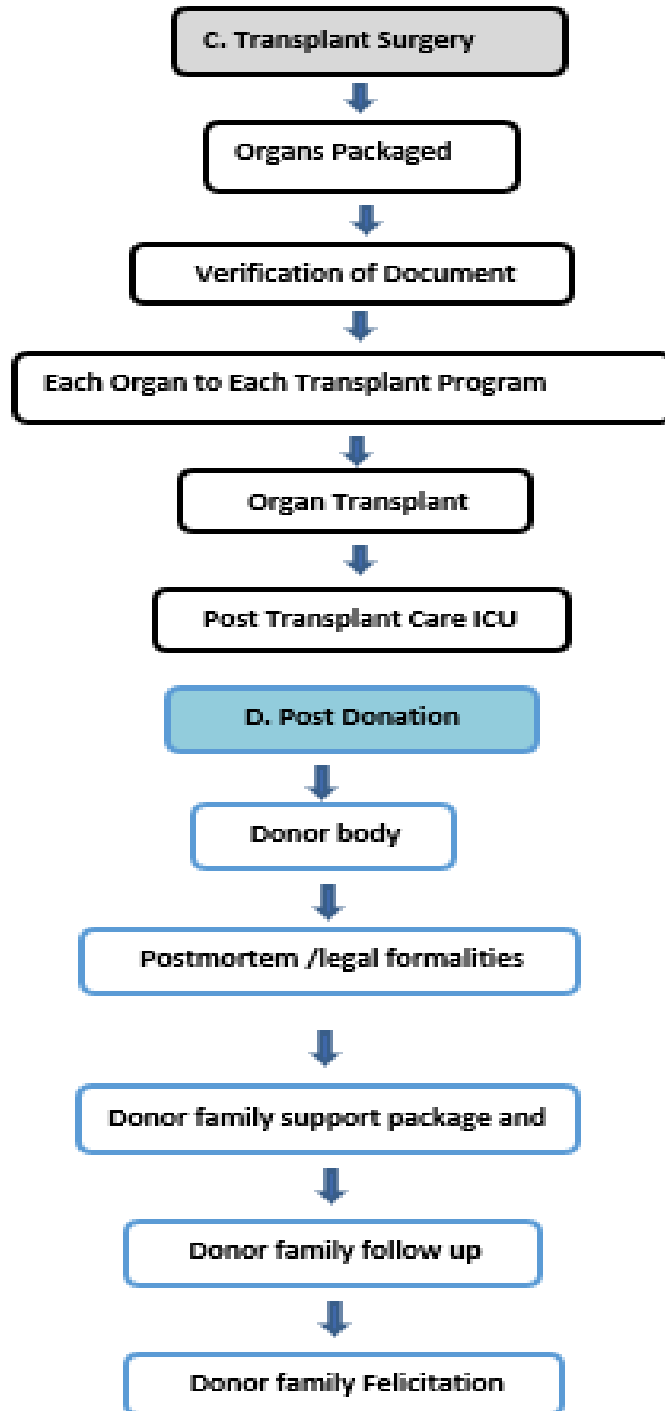
There is a well-established process for organ donation, transplantation, and post-transplant care.

Deceased Donation Process:

- Organ donation occurs after death; however, when a critical patient arrives at the emergency department or intensive care unit, healthcare and transplant professionals are notified if donation is a possibility.
- Guidelines and algorithms are followed to manage clinical triggers for referral. If brain death occurs, further procedures are initiated.
- At every stage, trained experts and medical professionals are available to facilitate this complex

process, which is completed in less than 24 hours.







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5. Living Donation:

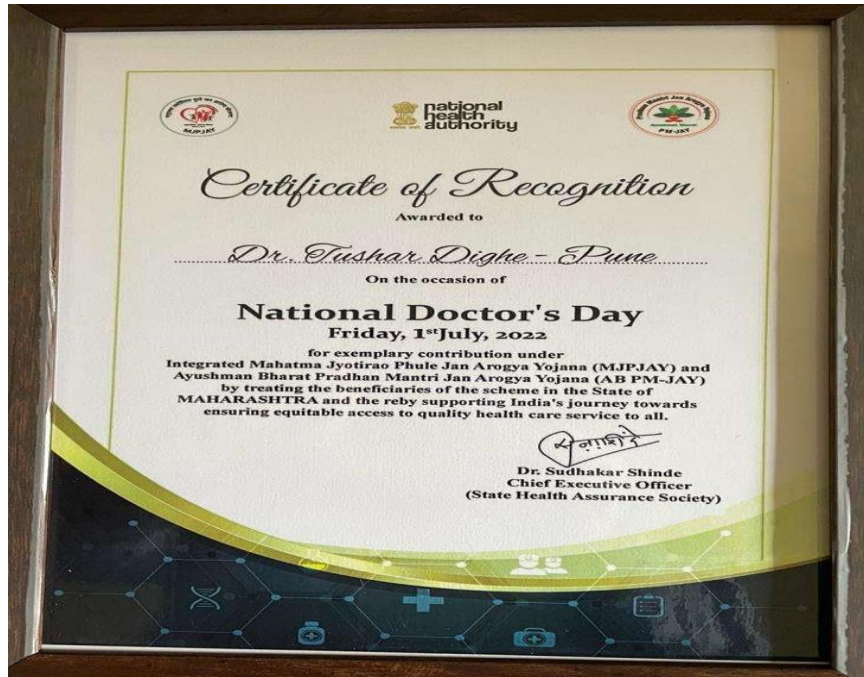
- Living donor and recipient families are thoroughly counseled and evaluated by multidisciplinary teams and an Ethics Committee before seeking approval. Both donors and recipients receive multilevel counseling support, including opt-out and alternative options, to ensure informed decision-making. Measures are in place to protect the health and interests of the donor.
- Living donor surgeries are elective; therefore, they are meticulously planned. Informed consent is obtained well in advance to ensure full understanding by all parties involved.
- Educational seminars are regularly conducted for the public and medical community to promote organ donation awareness.

6. Evidence of Success:

The region's first heart-lung transplant was performed at the medical hospital. DPU offers affordable care packages for transplant patients and assists in fundraising, providing access to life-saving transplants for everyone, regardless of financial status. DPU has successfully performed numerous kidney transplants under the Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) government scheme.

Total number of kidney transplants	210
MJPJAY	136
Other funding and self-paying	74

DPU has conducted the highest number of deceased donations from a single center in the Pune region. In recognition of this achievement, Dr. Tushar Dighe, a nephrologist, was honored by the Chief Secretary of the National Health Authority under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (2022) for performing the most kidney transplants in the MJPJAY private hospital category.



Total number of Transplants from August 2023 – July 2024

No. of Transplant												
Month	Kidney			Liver			K+L	Heart and Lung Transplant			K+P	
	Living	Cadaver	Total	Living	Cadaver	Total	Cadaver	CHL	Heart	Lung	Cadaver	Total
Aug-23	4	1	5	Nil	1	1	Nil	Nil	Nil	2	Nil	8
Sep-23	Nil	1	1	Nil	1	1	Nil	Nil	1	2	Nil	5
Oct-23	1	1	2	Nil	1	1	Nil	1	Nil	1	1	6
Nov-23	Nil	1	1	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil	2
Dec-23	1	1	2	Nil	2	2	Nil	Nil	Nil	Nil	Nil	4
Jan-24	2	1	3	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	4
Feb-24	3	2	5	Nil	1	1	Nil	Nil	Nil	1	Nil	7
Mar-24	1	Nil	1	Nil	1	1	Nil	Nil	Nil	2	Nil	4
Apr-24	1	2	3	Nil	Nil	Nil	Nil	1	Nil	1	Nil	5
May-24	1	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1
Jun-24	4	Nil	4	Nil	1	1	Nil	Nil	Nil	1	Nil	6
Jul-24	Nil	3	3	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	4
Total	18	13	31	Nil	8	8	1	2	2	11	1	56



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The organs received are not only used at DPU Hospital but are also sent to other hospitals through the provision of a 'Green Corridor' provided by the government of Maharashtra, following allocation guidelines.

Total Brain Stem Death (BSD) declaration for the period – August 2023 – July 2024

Sr. No.	Brain Stem Death (BSD)	Number
1	Total Brain Stem Death (BSD) declaration from 2018 totill date	128
2	Total BSD converted to Organ Donation	09
3	Total Organ Donation Declined due to medical reason or any other reason	03
4	Total Organs Utilized from organ donation till date (Inhouse + Shared to Others)	30
6	Inhouse Organ Utilization	15
7	Organ Shared with various hospitals through ZTCC, Pune	15
8	Organ Received from various hospitals through ZTCC, Pune	21
9	Total Organ Utilization	36



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Utilization of Donated Organs:

The success rate of various transplant surgeries makes DPU Medical Hospital a top destination for healthcare. Every year, DPU conducts several workshops to raise awareness about the importance of organ donation through various NSS activities.

Below are some activities related to voluntary body and organ donation:

- Body donation pledge forms completed: 1,907 (2023-24: 43)
- Organ donation pledges: 259 (2023-24: 276)
- Bodies donated after awareness campaigns: 51 (2023-24: 49)
- Corneal donations: 106 (2023-24: 97)
- Ph.D. completions: 1 (2023-24: 0)

These awareness campaigns have significantly increased knowledge about the potential for donating various organs.

Activities to Promote Organ Donations:

Regular educational seminars are conducted for the public and medical community to raise awareness and dispel myths about organ donation. Experts travel to remote areas, utilizing various campaign measures to spread information.

Interactive sessions are held nationally and internationally to keep professionals updated on the latest processes, scientific advancements, and guidelines in organ donation.

- We have published 20 research papers and received 3 awards in this field.
- We collaborate regularly with government organizations such as NOTTO, SOTTO, ROTTO, and ZTCC to enhance organ donation activities.
- Visits to both remote and urban hospitals are organized to educate medical staff about brain death certification and organ donation, providing professional support when needed.

At DPU, the first heart transplant was performed on a patient from a low-income background free of charge, with all expenses covered by DPU management. This principle ensures that no patient is turned away due to financial constraints, even if they do not meet the requirements of

government schemes.



CME Aug 2024



Book release on information on organ donation



Social outreach activities





Awareness rally



Research:

- Bharambe V. Organ shortage: Can educating the medical students be the key? *Medical journal of Dr D Y Patil Vidyapeeth*. 2021;14940:468-468
- Bharambe V, Puranam V, Manivikar P. Organ donation and gender differences. A qualitative study of female donor experiences. *Teikyo Medical Journal*. 2021;4495):1123-1131
- A descriptive cross-sectional study to assess knowledge regarding brain death among health professionals in India. Accepted for publication in *Indian journal of transplantation*
- Organ donation from medical care professional's perspective: A study in Pune region of India. Accepted for publication in *Saudi Journal of Kidney disease and transplantation*.
- "Challenges and impact of organ donation and ways to combat them- A study in Pune revenue division of Maharashtra". *PhD degree awarded in 2018* to Dr. Vaishaly Bharambhe. Professor of Anatomy DPU. Medical College.
- "Case of Combined HLT in scleroderma related progressive ILD" presented at the National conference *ACINUS 2022* and received first prize by Dr. Sakhavalkar and team CCU DPU
- "Gift of Life CHLT for ILD and severe PAH in a patient with systemic sclerosis" *ACINUS 2022* Dr. Sakhavalkar and team CCU DPU
- "Cost effective combined Heart Lung Transplant Care with humanization in tertiary care ICU of Medical College" – Dr. Prashant Sakhavalkar, Dr. Kalpana Kelkar, Dr. Prachee Sathe, Dr. Asir Tamboli, Ms. Mayuri Barge – sent for publication to *The Indian Journal of Critical Care*.
- Vrishali P Patil, Hans Sollinger; *Pancreas Transplantation: Improving Survival In Diabetes*, Oxford University Press. United Kingdom Gastrointestinal Surgery Library: Pancreas. Book Published 29 September 2022, Chapter 14.



The Transplantation Society (TTS)
congratulates

Abhijit Chavan

for participating as a

2022 TTS Student Ambassador

29th International Congress of The Transplantation Society

September 10th – 14th, 2022

Marcelo Cantarovich
President
The Transplantation Society



Academic Activities Undertaken to Promote Organ Donation

Organ Donation Awareness & Training Activities

Kutuh Medical Expo for Organ Donation Activity



Participated as Speaker in ROTTO SOTTO Transplant Coordinator's Training Programme



Participated as Speaker in ROTTO SOTTO Transplant Coordinator's Training Prog.



Participated as Panelist in National Med legal Awareness Campaign on Organ Donation, Pune



Awareness Activity with IMA (Pune & Pimpri Chinchwad)



Awards & Accolades...

By ZTCC, Pune



By IMA Pune



By IMA PCMC



By S.B. Patil College, PCMC



By ROTTO SOTTO



By Lions Club Internationals District 3234 D2



Participation in film prepared by ROTTO /SOTTO for Coordinator Training





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A program was organized on National Organ Donor Day for the families of cadaveric organ donors in which we felicitated the members of these families for their contributions to the cause.





Dr. D. Y. Patil Hospital and Research Center, Pune, has received recognition in the following categories within the Maharashtra State and the broader region, encompassing Maharashtra, Gujarat, Madhya Pradesh, Goa, Chhattisgarh, Daman and Diu, as well as the Union Territory of Dadra and Nagar Haveli in 2022:

- i. Best Transplant Coordinator in Maharashtra Region and State.
- ii. Best BSD team in Maharashtra Region and State.
- iii. Exemplary performance in transplant surgeries or Treatment of End Stage Disease.

#OrganTransplant

**DPU
PRIVATE
SUPER SPECIALTY
HOSPITAL**

**We Felicitated
16 Living Donors as well as
Families of Deceased Donors on the
National Organ Donation Day**

This initiative was featured in several
leading publications in India, helping us
spread awareness about Organ Donation

Media Coverage

Salute to the Real Heroes





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Problems Encountered and Recourses Required:

- A large number of patients are on the waitlist, while organ donations remain insufficient. Efforts to bridge this gap are ongoing.
- Transplant surgery, along with immunosuppression, frequent investigations, and hospitalizations, makes it an expensive treatment. Consequently, patients often avoid transplants due to financial constraints.
- At DPU, organ transplant resources include providing specialized facilities, such as isolation rooms, a trained nursing staff with a one-to-one patient ratio, and dedicated paramedical staff. Individualized care plans are made affordable, and if they are not, the possibility of government funding is discussed on a case-by-case basis.
- Challenges in transplantation include the low number of pediatric and female organ transplants. Therefore, DPU undertakes initiatives in counseling, raising awareness, and facilitating follow-ups according to family circumstances.
- Preventing organ trafficking is a significant challenge, addressed by promoting awareness of deceased donations, holding meetings with legal advisors and patients, and providing brochures and information to ensure compliance with the legal framework.

Note:

- Dr. D.Y. Patil Vidyapeeth (DPU) is committed to setting global standards of excellence in healthcare delivery, particularly within its medical college located in the suburban area of Pune. The institution offers comprehensive multi-organ transplant services under one roof, ensuring that advanced care remains both accessible and affordable to the community.
- Simultaneously, DPU provides its medical and nursing students with invaluable training and hands-on experience in cutting-edge techniques for organ donation and transplantation.



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- Looking ahead, the university envisions expanding its capabilities to include hand transplants, uterus transplants, small bowel transplants, islet cell transplants, and the establishment of a dedicated research laboratory.
- To further strengthen its programs, DPU collaborates with international organizations to foster academic teaching, scientific innovation, and the exchange of ideas and protocols, ensuring continual growth and alignment with global best practices.