

**BEST PRACTICE - 1**

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

**2. Objectives of the practice:**

Dr. D.Y Patil Vidyapeeth (DPU), Medical College Hospital is a tertiary care Hospital delivering super specialty services towards Organ donation and Multi Organ Transplant providing care and treatment to patients with End Stage Organ Disease. In Pune region currently, there are 1500 patients awaiting for Kidney transplants, 1000 for Liver and 100 for Heart transplants. About 60% patients fall off the waitlist and die or progress to multi organ failure because of shortage of organs. DPU, Medical Hospital has played an important role in mitigating this need with following objectives:

- i) To create awareness amongst public for organ donation
- ii) To follow the norms/ policies laid down by “The Transplantation of Human Organs Act and Rules” and guidelines laid down by the “National Organ and Tissue Transplant Organization (NOTTO) State Organ and Tissue Transplant Organization (SOTTO) , Zonal Transplant Coordination Centre (ZTCC).
- iii) To treat end organ failure patients through multi organ transplant department and experienced professionals with advanced surgical skills by identifying intensive care needs to monitor patients in transplant and post-transplant care.
- iv) Identify barriers, hurdles, errors and formulate method of early identification and resolution of issues and improvement methods and assess and edit outcomes regularly.

**3. The Context:**

The urgent need for organ donation and transplant can never be overemphasized. Despite clear guidelines by the Central and State authorities and public awareness campaigns, there is misunderstanding, myths, fear, anxiety and hesitancy regarding organ donation resulting in few organ donations besides people dying for want of transplant. DPU has identified this issue and established a system to help organ donor families, respect their wishes for organ donation and provide a support system post donation with all due ethical, legal process in place.

DPU established Center for Multi Organ Transplant, Institutional Authorization Committee for Organ Donation and Transplant, Brain Death Committee, Team of Legal advisors, and experts in

advanced multi organ transplant practices for cadaveric and related living transplants in adults and pediatric population as follows:

- Kidney and Cornea Transplant since 2013
- Liver Transplant since 2018
- Heart Transplant since 2020
- Heart and Lung since 2022

The organ transplant facility at DPU includes:

- State of the Art Operation Theaters for Living donor transplant
- 4<sup>th</sup> Generation Da Vinci Robotic Surgical System for Robotic procedures in the Living Donor
- Isolated and Highly specialized Transplant Intensive Care and Transplant Units
- Multidisciplinary teams are in place for transplant as per norms

#### **4. The Practice:**

There is a well established flow process from organ donation to transplant and post transplant care.

##### **A) Deceased Donation Process:**

- Organ donation occurs after death however, when critical patient comes to the emergency department/intensive care unit, healthcare/transplant professionals are made aware and alert about the patient if donation is to take place.
- Guidelines and algorithm are followed in the case of clinical triggers for referral, if brain death occurs subsequently further process is adopted.
- At every level, trained experts, medical faculty and professionals are available to facilitate this exhaustive process which takes place in less than 24 hours.

##### **B) Living Donation:**

- Living donor patient and recipient families are counselled and evaluated in detail by multi disciplinary teams and Ethical Committee before the proposal is sent for approval.
- Multi-level counselling support, opt out /alternative options are offered to both recipient and living donors separately and measures to protect the health and interest of the donor are taken.

- Living donor surgeries are elective hence are planned in great details, informed consents are taken and enough time is given to ensure the process is understood by both teams.
- To Promote Organ Donations, Educational seminars for the public and medical fraternity are conducted at regular intervals

#### 5. **Evidence of Success:**

The first Heart Lung Transplant in the region was done at Medical hospital. The total number of Organ Transplants at DPU (Medical Hospital) from 2013 to 2022 are as follows:

Sr. No.	Organ	Total number of Transplants	Live	Cadaveric
1.	Renal	150	115	35
2.	Liver	45	07	38
3.	Corneal	56	NA	56
4.	Heart	01	NA	01
5	Heart-Lung	02	NA	02

- DPU offers affordable care packages for transplant patients and helps to raise funds and therefore access to life saving transplants. The complete horizon from poor to rich patients can access this super specialty services without any compromise or fear of want of care at DPU. DPU has performed a large number of Kidney Transplant under Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY), Govt scheme as follows:

Total number of kidney transplants	150
MJPJAY	108
Other funding and self paying	42

- DPU has performed the largest number of deceased donations from a single center in Pune Region since the year 2018. In view of this achievement, Dr. Tushar Dighe (Nephrologist) was felicitated by Chief Secretary-National Health Authority-Ayushman Bharat Pradhan Mantri Jan

Arogya Yojana (2022) for performing maximum number of kidney transplants in MJPJAY in Private Hospital Category.

**6. Problems Encountered and Recourses Required:**

- Large number of patients on waitlist and the number of organ donations being less. Measure to bridge this gap is an ongoing process.
- Transplant surgery and immunosuppression with frequent investigations and hospitalization make it an expensive treatment. Therefore, patients avoid transplants due to lack of funds.
- At DPU for organ transplant resources required includes providing super specialty facilities, using standard practices like isolation rooms, trained nursing staff with one to one patient ratio and separate paramedical staff besides individualized care plans that are affordable and if not affordable are discussed case by case for possibility of government funding.
- The overall issues and challenges faced in Transplant include very few pediatric and female organ transplants. Therefore, DPU takes initiatives in counselling, raising awareness and making it easy for follow up as per family circumstances.
- The biggest challenge is also to prevent Organ Trafficking that is addressed by increasing awareness for deceased donations and having meetings with legal advisors and patients and families, providing brochures and information to patients to ensure legal framework is followed.
- During COVID pandemic the challenge faced was less Organ Donations due to COVID protocols.

**This is to certify that the above document has been verified.**

Dr. A. N. Suryakar  
Registrar