

## “The What, How, When and Why of organ donation”: A panel discussion by MBBS students of NKPSIMS & RC Nagpur

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### Abstract

It is said, you live only once. By donating an organ you can live twice.

On the 17th of April, 2016, the NKP Salve Institute of Medical Sciences and Research Centre, held a panel discussion on the topic of organ donation and transplantation, with the purpose of increasing awareness and knowledge of the subject. The Chief Guest for the event was Dr. Russell D'Souza, Head, Asia Pacific Division, UNESCO Chair in Bioethics.

The author and moderator of the panel discussion was Narayani Kalnawat (NK), MBBS intern. Our panel of experts consisted of students of second year MBBS, who thoroughly studied and researched the topic, ready to answer any questions posed to them. These students and the co-authors of the panel discussion were Ms. Rinkledeep Kaur (RK) from Hissar, Mr. Arpit Roy (AR) from Nagpur, Ms. Simran Tuli (ST) from Aurangabad and Mr. Shezan Fouzdar (SF) from Mumbai.

### Access this article online

#### Website:

www.innovativepublication.com

#### DOI:

10.5958/2393-8005.2016.00010.3

- Hand
- Cornea
- Skin, including face replant and face transplant
- Islets of Langerhans (pancreas islet cells)
- Bone marrow/ Adult stem cell
- Blood transfusion
- Blood Vessels
- Heart Valve
- Bone

### NK: How did organ donation come into being?

**RK:** The early accounts of transplants deal with skin transplantation. The first reasonable account is of the Indian surgeon Sushruta, who used auto grafted skin transplantation in rhinoplasty. It was the advent of cyclosporine that altered transplants from research surgery to life-saving treatment.

### NK: What is the need for organ donation?

**SF:** In India, The average number of people who die each year before they can receive a lifesaving organ transplant is nearly 500,000.

The lack of organs causes an organ deficit, which creates a market for illegally acquired organs and leads to organ trafficking

### NK: So, which are the organs that can be donated? And what are the types of organ transplant?

**RK:** • Organs that can be donated are

- Chest
  - Heart
  - Lung
- Abdomen
- Kidney
  - Liver
  - Pancreas
  - Intestine
  - Stomach
  - Testis

Tissues, cells and fluids

The types of transplant are:

- AUTOGRAFTS
- ALLOGRAFTS
- ISOGRAFTS
- XENOGRAFTS
- SPLIT TRANSPLANT
- DOMINO TRANSPLANT
- ABO - INCOMPATIBLE TRANSPLANTS

### NK: Is there any advantage that living donation has over post-mortem donation?

**ST:** Living donation has some obvious advantages over post mortem donation.

It is done mostly between members of the family, which ensures a better genetic match. A better match lessens the risk of rejection

Living-donor organs are often in better condition than deceased-donor organs.

There is no preservation time for a living-donor. A living-donor transplant can be scheduled and performed before the recipient becomes extremely ill. This leads to fewer complications, faster recovery, and better long-term results.

The commonest organ donated by living donors is the kidney

When someone has been on dialysis, even if only for a short time, the risk of transplant failure is much

greater. The longer the wait, the more extensive the dialysis and the higher the risk of failure.

**NK: How can someone become an organ, eye and tissue donor in India?**

**AR:** If you consider yourself a potential donor, your medical condition and circumstances of death will determine what organs and tissues can be donated. Once you make the decision to be a donor, record your decision. There are several ways to do this.

- Register your decision with NGOs and enroll for a donor card.
- Enroll in the registry when you obtain or renew an instruction permit or driver/ non driver license
- Sign the back of your license with a permanent marker – be sure to have witness sign too
- Include your decision in an advance health care directive, will or living will
- Sign and carry a donor card or other signed record
- inform your family. So that they know what you would like to happen after your death and can confirm or help inform the hospital staff what your wishes were.

**NK: What is brain death?**

**ST:** Brain stem death essentially has three components: coma, loss of brainstem reflexes and asphyxia.

Coma is a condition wherein a person cannot be awakened, shows no voluntary movement or response to any kind of painful stimulus and has no sleep-wake cycles.

When a person is brain-dead, his brainstem reflexes would be absent. These reflexes include:

- Pupillary reflex
- Corneal reflex.
- Vestibulocochlear reflex.
- Gag reflex

The last component is asphyxia. If the brainstem function is lost, vital activities controlled by it such as breathing would also be lost. The doctors turn off the ventilator for five minutes to allow the partial pressure of carbon dioxide to rise to 6.0 kPa. If there is no ventilatory effort, the doctors declare brain death.

**NK: What if somebody dies prematurely and they have not pledged their organs yet, who decides if their organs will or will not be donated?**

**AR:** If no documented evidence of your wishes to be a donor can be found and you are a suitable candidate for donation, your family will be contacted so that they can make a direction on your behalf. In India, the choice is left to the family if they want your organs to be donated or not.

**NK: So if somebody has pledged their organs, and their next of kin does not agree with their decision, will the organs of the deceased still be taken for donation? Is there a legal bond?**

**AR:** If you become a candidate for organ donation, doctors will ask your next of kin to give their consent to donation on your behalf. It is much easier for the family to make the decision if they know the wishes of their loved one beforehand.

No organ donation can be carried out without the consent of the next of kin. Even if you decide to pledge your organs, if your family says no at the time, then it's a No.

**NK: Organ donation is a wonderful thing, and everybody should ideally donate. Despite the glaring need for organ donation, why is the number of donors so low?**

**SF:**

- In a developing nation like India, there is little or no awareness regarding the practice of organ donation.
- Religion and superstitions play a pivotal role many believe it is against their religion.
- The fear of mutilation which could impair their final burial rites.
- Most importantly, there is medical mistrust. Patients believe the doctors would not put in a 100% effort to save their lives in the hopes of harvesting their organs.
- There are misconceptions and a lack of awareness about brain death. Many people refuse to donate organs until the heart stops beating.
- Doctors are legally obligated to take the family members' consent before retrieving organs, even if the brain-dead patient has pledged his or her organs.

**Dr. Russell D'Souza** concluded by saying, "Our experts have really done their homework. Raising awareness on the subject, getting rid of superstitions and improving the rate of organ donation is really important in today's world, as we know it can save innumerable lives. In Australia, for instance, since unemployment is a huge problem, healthy individuals are being urged to make living donations and are being offered monetary compensation. The number of donations has definitely increased, especially since living donations do not deteriorate the donor's quality of life. It is a completely legal process, where not only the recipient, but also the donor is benefited. Maybe this could be tried in India as well, to achieve higher rates of donations."

We can therefore infer that most people have little or no knowledge about the aspects of organ donation and transplantation. The authors, through this event,

hope to have convinced people to donate organs, or at least increase awareness about the subject.