



Handbook for Non-Transplant Organ Retrieval Centres (NTORC) / Human Organ Retrieval Centres (HORC)

Compiled by MOHAN FOUNDATION



MOHAN
FOUNDATION



Enabling Organ Donations with Compassion and Respect

This handbook symbolises our collective commitment to empower Non-Transplant Organ Retrieval Centres (NTORCs) in honouring families' wishes and facilitating life-saving organ donations with compassion and respect. By fostering collaboration and demonstrating excellence in care, NTORCs play an irreplaceable role in the organ donation ecosystem, ensuring that every donation is treated with the utmost dignity and sensitivity.

NTORCs occupy a pivotal position, where their actions and decisions have the power to maintain the dignity of donors and their families, in line with the highest ethical and compassionate practices. In India, it is estimated that there are only 650-700 hospitals which are licensed for both donation and transplantation, organ donation opportunities can arise in any of the country's over 100,000 hospitals. This handbook aims to guide both NTORCs and hospitals not registered for organ donation through the intricacies of the process of donation. It offers guidelines, insights, and best practices to boost your ability to facilitate donations with empathy and respect.

We extend our heartfelt gratitude to the dedicated champions within NTORCs who skillfully navigate the complexities of organ donation with sensitivity and care. These individuals ensure that families have the opportunity to transform their loss into a legacy, allowing their loved ones to contribute to the miracle of life even after passing.

We firmly believe that this handbook will be an invaluable asset in our ongoing efforts to facilitate organ donations that not only save lives but also honour the profound legacy of donors.

Title

Handbook for Non-Transplant Organ Retrieval Centres (NTORC) /
Human Organ Retrieval Centres (HORC)

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Introduction

In order to increase the pool of available deceased donors, the Indian Government in its amendments to the Transplantation of Human Organs Act in 2011, defined a new set of hospitals called the Non-Transplant Organ Retrieval Centres (NTORC) [OR] Human Organ Retrieval Centres (HORC).

Definition

Human organ Retrieval Centre (HORC) means a hospital which has adequate facilities for treating seriously ill patients who can be potential donors of organs in the event of death; and which is registered for retrieval of human organs [Transplantation of Human Organs (Amendment) ACT, 2011].

Organ donation from brainstem-dead donors from non-transplant hospitals is less common in our country. The provision for NTORCs expands the scope of organ donation to smaller hospitals in cities and in smaller towns. Increase in organ donations is aimed at increasing the numbers of life saving transplants and saving more patients with end stage organ failure.

These hospitals may not have transplant surgeons and other facilities to do transplant surgery, yet may have the required infrastructure and motivated medical professionals for identification, certification and maintenance of a brainstem-dead donor, along with removal and storage of organs / tissues to qualify as a Human organ Retrieval Centre (HORC).

Registration as Non-Transplant Retrieval Centre (Section 24)

- ▶ An application for registration shall be made to the Appropriate Authority as specified in Form 13 (Annexure 1) as applicable.
- ▶ The Appropriate Authority shall, after holding an inquiry and after satisfying itself that the applicant has complied with all the requirements, grant a certificate of registration as specified in Form 16 (Annexure 2) and it shall be valid for a period of five years from the date of its issue and shall be renewable.
- ▶ Before a hospital is registered under the provisions of this rule, it shall be mandatory for the hospital to appoint a transplant coordinator.

Renewal of Registration (Section 25)

- ▶ An application for the renewal of a certificate of registration shall be made to the Appropriate Authority at least three months prior to the date of expiry of the original certificate of registration.
- ▶ A renewal certificate of registration shall be as specified in Form 17 (Annexure 3) and shall be valid for a period of five years.

Conditions and Standards for grant of certificate of registration for Organ Retrieval Centres (Section 27)

- ▶ The retrieval centre shall be registered only for the purpose of retrieval of organs and tissues from deceased donors and the organ retrieval centre shall be a hospital having Intensive Care Unit (ICU) facilities along with manpower, infrastructure and equipment as required to diagnose and maintain the brainstem-dead donor and to retrieve and transport organs and tissues including the facility for their temporary storage.
- ▶ All hospitals registered as transplant centres shall automatically qualify as retrieval centres.
- ▶ The retrieval centre should have linkages with nearby Government hospital designated for post-mortem, for retrieval in medico-legal cases.
- ▶ Registration of hospital for surgical tissue removal shall not be required.



Declaration and certification of Brainstem Death is critical for organ donation and retrieval. As per the recent amendments, declaration of brainstem death and organ retrieval are not only permitted in hospitals approved for organ transplantation, but also in any hospital licensed as Human Organ Retrieval Centres (HORC). In both the transplant centre and human organ retrieval centre, empaneling the experts for brainstem death certification remains the same.

As described in the Transplantation of Human Organs and Tissues Rules, 2014, brainstem death will be certified by the panel of experts consisting of the following:

- ▶ *A Registered Medical Practitioner (RMP) - Incharge of the hospital*
- ▶ *An independent RMP nominated from the panel of names sent by the hospital and approved by the Appropriate Authority*
- ▶ *A neurologist or neurosurgeon from the panel of names approved by the Appropriate Authority. If Neurologist / Neurosurgeon is not available, any Surgeon or Physician and Anaesthetist or Intensivist nominated by the head of the hospital duly empanelled by Appropriate Authority*
- ▶ *RMP treating the aforesaid deceased person*

Process for applying for a Brainstem Death Certification Committee

A written application with a covering letter from the head of the hospital, mentioning the type of centre (transplant centre or HORC) is sent to the State Appropriate Authority along with the consent forms duly filled and signed by the specialists who consent to be the part of Brainstem Death Certification Committee (Annexure 4).

After receiving the application for forming Brainstem Death Certification Committee, the State Appropriate Authority would come for an inspection in the facility on a decided day. All the enlisted specialists are supposed to meet the members of the inspection board.

Authority inspection members would check Form 16 (certificate of registration for performing organ or tissue transplantation / retrieval / or tissue banking) and the required documents to ascertain that the enlisted specialists are the full-time employees of the hospital.

Appropriate Authority will then send the communication approving the panel of experts for brainstem death certification via email and by post.

Forming a Brainstem Death Certification Committee

Declaration and certification of Brainstem Death is critical for organ donation and retrieval

Note:

Consultants involved in transplant program are not to be registered as experts for brainstem death certification.

There is no limit to the number of specialists who can be empaneled for brainstem death certification. Therefore, RMPs from any speciality other than the ones involved in transplant program such as Cardiology, Cardiothoracic Surgery, Pulmonology, Gastrointestinal Surgery, Gastroenterology, Urology and Nephrology shall be nominated by the hospital as experts for brainstem death certification committee. It is paramount that these empaneled RMPs are available round the clock to enable timely brainstem death certification.

Procedure for Registration of Non-Transplant Organ Retrieval Centre (NTORC)

Apply

Apply to the Appropriate Authority (AA)
in Form 13



Appoint TC

Mandatory for the hospital to appoint
a Transplant Coordinator before
registration



Pre-conditions

Pre-conditions to be met:
ICU manpower, infrastructure &
equipment required to diagnose &
maintain the brainstem dead person and
to retrieve, temporary storage &
transport organs & tissues



Linkages

The retrieval centre should have linkages
with nearby Government hospital
designated for post-mortem, for retrieval
in medico-legal cases



Certification

The AA will grant a certificate of
registration in Form 16



Annexure 1

FORM 13

Application for Registration of hospital to carry out organ/ tissue retrieval other than eye/ cornea retrieval

(To be filled by head of the institution)

Note: Retrieval Hospitals may also be identified based on pre-defined criteria and registered as retrieval hospital by the appropriate authority

To

The Appropriate Authority for organ transplantation.....
(State or Union territory)

We hereby apply to be registered as an institution to carry out organ/tissue retrieval.

The required data about the facilities available in the hospital are as follows: -

HOSPITAL:

Name:

Location:

Government/Private:

Teaching/Non-teaching:

Approached by

Road: Yes No

Rail: Yes No

Air: Yes No

Total bed strength:

Name of the disciplines in the hospital:

Annual budget:

Patient turn-over/year:

SURGICAL FACILITIES:

No. of beds:

No. of permanent staff members with their designation:

No. of temporary staff with their designation:

No. of operations done per year:

Trained persons available for retrieval (Please specify Organ and/or tissue for retrieval):



Annexure 1 (Contd)

MEDICAL FACILITIES:

- No. of beds:
- No. of permanent staff members with their designation:
- No. of temporary staff members with their designation:
- Patient turnover per year:
- Trained persons available for retrieval (Please specify organ and/or tissue for retrieval):
- No. of critical trauma cases admitted per year:
- No. of brainstem death declared per year:

ANAESTHESIOLOGY:

- No. of permanent staff members with their designations:
- No. of temporary staff members with their designations:
- Name and No. of operations performed:
- Name and No. of equipments available:
- Total No. of operation theatres in the hospital:
- No. of emergency operation-theatres:
- No. of separate retrieval operation theatre:

I.C.U./H.D.U. FACILITIES:

- I.C.U./H.D.U. facilities: Present.....
Not present.....

- No. of I.C.U. and H.D.U. beds:
- Trained: -
- Nurses:
- Technicians:
- Name of equipment in I.C.U.

OTHER SUPPORT FACILITIES:

Data about facilities available in the hospital:

F1. LABORATORY FACILITIES:

- No. of permanent staff with their-designations:
- No. of temporary staff with their designations:
- Names of the investigations carried out in the Deptt.:
- Name and number of equipments available:

F2. IMAGING FACILITIES:

- No. of permanent staff with their-designations:
- No. of temporary staff with their designations:
- Names of the investigations carried out in the Deptt.:
- Name and number of equipments available:



Annexure 1

(Contd)

F3. HAEMATOLOGY FACILITIES:

No. of permanent staff with their-designations:
No. of temporary staff with their designations:
Names of the investigations carried out in the Deptt.:
Name and number of equipments available:

F4. BLOOD BANK FACILITIES: (in house or access)

Yes No

F5. TRANSPLANT COORDINATORS: Yes No

Number Posted:
Number Trained:

The above said information is true to the best of my knowledge and I have no objection to any scrutiny of our facility by authorised personnel. I hereby give an undertaking that we shall make the facilities of the hospital including the retrieval team of the hospital available for retrieval of the organ/tissue as and when needed.

Sd/-

HEAD OF THE INSTITUTION



FORM 16

Certificate of Registration for performing organ/tissue transplantation/retrieval and/or tissue banking

Annexure 2

This is to certify that _____ Hospital / Tissue Bank located at _____ has been inspected and certificate of registration is granted for performing the organ/tissue retrieval/transplantation/banking of the following organ(s)/tissue(s) (mention the names) under the Transplantation of Human Organs Act, 1994 (42 of 1994):

1. _____
2. _____
3. _____
4. _____.

This certificate of registration is valid for a period of five years from the date of issue.

This permission is being given with the current facilities and staff shown in the present application form. Any reduction in the staff and/or facility must be brought to the notice of the undersigned.

Place: _____ Signature of Appropriate Authority: _____

Date: _____ Seal: _____



FORM 17

Certificate of Renewal of Registration

(To be given by the appropriated authority on the letter head)

Annexure 3

This is with reference to the application dated _____ from _____ (Name of the hospital/tissue bank) for renewal of certificate of registration for performing organ(s) / tissue(s) retrieval/transplantation/banking under the Transplantation of Human Organs Act, 1994 (42 of 1994).

After having considered the facilities and standards of the above-said hospital/tissue bank, the Appropriate Authority hereby renews the certificate of registration of the said hospital/tissue bank for a period of five years.

This renewal is being given with the current facilities and staff shown in the present application form. Any reduction in the staff and/or facility must be brought to the notice of the undersigned.

Place: _____ Signature of Appropriate Authority: _____

Date: _____ Seal: _____



Proforma for Empaneling RMPs / Specialists to form Brainstem Death Certification Committee

1. Name :
2. Qualification :
3. Designation :
4. Registration No. :
5. Name of State Medical Council :
6. Residential Address (With Tele. No.):

Annexure 4

CONSENT FORM

I hereby declare that I am willing to be a part of panel of RMPs for the purpose of certification of brainstem death in relation to organ transplantation under Transplantation of Human Organs Act.

Date: _____

Signature: _____

Name: _____



**Standard
Operating
Protocols
for starting
Deceased
Donation
Program in
a Hospital**

Purpose

This document aims to lay the Standard Operating Procedures and guidelines for successfully carrying out a Deceased Organ Donation Program within the hospital.

STEP 1: Identification of Brainstem Death

GIVE: G - GCS less than 5; I - Intubated; V - Ventilated; E - End of Life Care

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Identify a potential donor with GCS less than 5 - by intensivist / neurophysician / neurosurgeon - inform the primary treating physician and the ICU Head & TC	ICU doctor at time of Call
Look for brainstem death signs - At least one absent brainstem reflex which cannot be explained by sedation - example absence of pupillary reflex or cough /gag reflex	ICU doctor at time of Call / an ICU specialist if available / ICU Staff
Inform the Brainstem Death Certification panel	TC
Support potential donor family and inform them of the patient's critical state	Treating physician / an ICU specialist if available / along with TC / Counsellor
Evaluate the potential donor family's dynamics - Learning more about the patient and the decision makers in the family	Treating physician / an ICU specialist if available / ICU Head / TC / Counsellor

STEP 2: Optimisation of Potential Donor

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Establish cause of brainstem death & rule out confounding factors	ICU doctor at time of Call or an ICU specialist if available
Ensure that all sedatives, muscle relaxants, narcotics should have been stopped immediately and if necessary, donor observation time of 4 to 12 hours is maintained	ICU doctor at time of Call or an ICU specialist if available
Basic minimum blood investigations - Blood Group & Virology status	ICU staff
Virology status should be available before proceeding further	ICU staff / TC
Coordinate for the certification protocol of brainstem death	ICU staff or TC intimates Brainstem Death Certification Committee
Donor optimization protocols to be initiated to preserve organ function	ICU doctor at time of call / ICU specialist if available / supporting nursing Staff
Support Donor family and inform them of the patient's critical state	Treating physician / TC / Counsellor

STEP 3: BSD Tests and Certification (1st Set)

ACTION TO BE TAKEN	PERSON RESPONSIBLE
First set of brainstem death tests done and documented on Form 10 and in the case sheet	ICU doctor at time of Call or an ICU specialist if available or ICU Head
Treating physician (intensivist/neurosurgeon) clarifies irreversible loss of all brain functions to the family members and conveys death in no uncertain terms. Also informs the family that the second brainstem death tests will be conducted after 6 hours. NO MENTION OF ORGAN DONATION AT THIS POINT (DECOUPLE)	ICU / Treating physician /TC
Give time to the family to come to terms with the loss	TC / counsellor supports family
TC speaks to family for organ donation at an appropriate time to obtain consent (checks with doctors that no contraindications to organ donation before speaking to the family)	TC (Ideally in presence of the treating doctor)
If consent is obtained, proceed with communicating with stakeholders	ICU doctor at time of call or an ICU specialist if available or ICU Head

STEP 4: Communication with Stakeholders

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Coordinate with transplant teams to do organ specific tests	TC
Blood samples / investigations required	TC / ICU staff
Preliminary information to NOTTO / SOTTO / Registry about a potential donor, Information about cause of brainstem death, blood group, virology, hemodynamic status and organs granted consent for donation	TC or Nodal Officer of the hospital informs concerned authorities
Information to Police & Forensic department of potential donor	TC or Nodal Officer of the hospital
Sensitize and support the donor family throughout	TC

STEP 5: BSD Tests and Certification (2nd Set)

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Second set of tests conducted at an interval of 6 hrs (minimum) for adults / 12 to 24 hrs in case of infants and pediatric patients and documented on Form 10	ICU specialist if available or ICU Head
Form duly signed by four doctors from brainstem death committee	TC to co-ordinate signatures on all forms
Obtain written consent for organ donation on Form 8 from the next-of-kin and countersigned from other family members as witnesses.	TC to co-ordinate signatures on all forms
In case of a Medico- Legal case (MLC): Investigating officer (police) to hand over the inquest, Forms I & II, form 8 & 10 to the forensic expert who will then sign the organ retrieval authorization Form III	Nodal officer / TC
<p>Hospital coordinates with the transplant teams for a matching recipient. Coordinate with SOTTO / NOTTO and other teams who have been allocated organs as per the sharing protocol with the knowledge of convener of the committee.</p> <p>Shift the donor to the OT for organ retrieval.</p>	TC

STEP 6: Retrieval of Organs

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Coordinate with OR and anesthesiologists Coordinate with external retrieval teams	Nodal officer / TC
Coordinate with the ICU staff to prepare the death certificate and summary	Nodal officer / TC / MSW
Ensure that all the paperwork and logistics like clearing of the bills / waiving donor management charges after 1st brainstem death certification / ambulance arrangement are completed on time	Nodal officer / TC / MSW
Keep family informed of the progress and provide constant support to the family	TC
Coordinate billing / documents to smoothen the process of handing over	TC / MSW
Organizing transport/handling over body respectfully	TC / MSW
In case of MLC, Post-mortem performed at the mortuary (Surgeon should prepare a summary of post-mortem)	TC

STEP 7: Post Donation Follow-up

ACTION TO BE TAKEN	PERSON RESPONSIBLE
Attend the prayer meeting post donation and hand over the appreciation certificate	TC
Post donation follow-up / home visit if required / rehabilitation / help the family to collect death certificate / insurance / post-mortem certificate / government scheme	TC
Document the story	TC





**Deceased
Organ
Donation
Procedure
in Medico-
Legal
Cases in
India**

The major cause of brainstem death in India is catastrophic brain injury sustained in a road traffic accident which is a medico-legal case (MLC). When families agree to organ donation in such a case, the procedure to be followed involves two groups who play pivotal roles - the police and the doctors who perform the post-mortem (primarily Forensic Medicine experts).

The Transplantation of Human Organs Act, 1994, lacked clarity regarding this procedure, occasionally leading to a peculiar situation where the post-mortem report, after organ donation, stated 'organs missing'. The Transplantation of Human Organs and Tissues Rules, 2014, aimed to address this. Since health comes under the purview of the states, several of them have issued Government Orders outlining the procedures to be followed for organ donation in medico-legal cases.

Legal Framework

Formalities in Road Traffic Accidents and Medico-Legal Cases

When an accident victim is brought to a hospital for emergency treatment, a First Information Report (FIR) has to be filed by the family in the nearest police station. Such cases are called medico-legal cases. Also, any medical treatment (for suicide, assault, poisoning or fall) which requires the police to be notified becomes a medico-legal case. Road Traffic Accidents (RTA) are booked under Indian Penal Code (IPC) 304A.

In case of an unnatural death, preliminary inquiry into the cause of death (inquest) is done by the police. The inquest is held by a police officer - Investigating Officer (IO) not below the rank of Senior Head Constable as per the provisions outlined in section 174 of the Code of Criminal Procedure. The IO prepares the inquest report (Panchanama) which takes about 1 to 2 hours. After the inquest, the IO prepares a request to the doctors to conduct the post-mortem. A Registered Medical Practitioner (RMP) from the allopathic stream is authorised to conduct post-mortem. After the post-mortem, the body is handed over to the police, who then give it to the family.

This process is inherently time-consuming, but in cases of deceased donation, additional formalities arise, including the brainstem death certification panel, involvement of police, forensic medicine experts, and multiple teams engaged in organ retrieval, thereby extending the timeline. In such scenarios, there's a potential for relatives to retract consent for organ donation. Hence, it's crucial for healthcare professionals to thoroughly explain the procedure to the family members.

Transplantation of Human Organs Act (THOA), 1994

Authority for the removal of Human Organs

(Chapter II, Section 4 THO 1994 Act)

No facilities shall be granted under sub-section (2)* of section 3 and no authority shall be given under sub-section (3)* of that section for the removal of any human organ from the body of a deceased person, if the person required to grant such facilities or empowered to give such authority has reason to believe that an inquest may be required to be held in relation to such body in pursuance of the provisions of any law for the time being in force.

References

Reference Chapter II, Section 3, subsection 2 (THO Act 1994) If any donor had, in writing and in the presence of two or more witnesses (at least one of whom is a near relative of such person), unequivocally authorised at any time before his death the removal of any human organ of his body after his death, for therapeutic purposes the person lawfully in possession of the dead body of the donor shall, unless he has any reason to believe that the donor had subsequently revoked the authority aforesaid, grant to a registered medical practitioner all reasonable facilities for the removal, for therapeutic purposes, of that human organ from the dead body of the donor.

Reference Chapter II, Section 3, subsection 3 (THO Act 1994) Where no such authority as is referred to in sub-section (2) was made by any person before his death but no objection was also expressed by such person to any of his human organs being used after his death for therapeutic purposes, the person lawfully in possession of the dead body of such person may, unless he has reason to believe that any near relative of the deceased person has objection to any of the deceased person's human organs being used for therapeutic purposes, authorise the removal of any human organ of the deceased person for its use for therapeutic purposes.

Chapter II, Section 6 THO 1994 Act

Where the body of a person has been sent for post-mortem examination: for medico-legal purposes by reason of the death of such person having been caused by accident or any other unnatural cause; or for pathological purposes, the person competent under this Act to give authority for the removal of any human organ from such dead body may, if he has reason to believe that such human organ will not be required for the purpose for which such body has been sent for post-mortem examination, authorise the removal, for therapeutic purposes, of that human organ of the

deceased person provided that he is satisfied that the deceased person had not expressed, before his death, any objection to any of his human organs being used, for therapeutic purposes, after his death or, where he had granted an authority for the use of any of his human organs for therapeutic purposes after his death, such authority had not been revoked by him before his death.

Transplantation of Human Organs and Tissues Rules, 2014

Section 6 lays down the procedure for donation of organ or tissue in medico-legal cases.

Procedure for donation of organ or tissue in medico legal cases:

After the authority for removal of organs or tissues, as also the consent to donate organs from a brainstem dead donor are obtained, the registered medical practitioner of the hospital shall make a request to the Station House Officer or Superintendent of Police or Deputy Inspector General of the area either directly or through the police post located in the hospital to facilitate timely retrieval of organs or tissue from the donor and a copy of such a request should also be sent to the designated post-mortem doctor of area simultaneously.

It shall be ensured that, by retrieving organs, the determination of the cause of death is not jeopardised.

The medical report in respect of the organs or tissues being retrieved shall be prepared at the time of retrieval by retrieving doctor (s) and shall be taken on record in post-mortem notes by the registered medical practitioner doing post-mortem.

Wherever it is possible, attempt should be made to request the designated post-mortem registered medical practitioner, even beyond office timing, to be present at the time of organ or tissue retrieval.

In case a private retrieval hospital is not doing post-mortem, they shall arrange transportation of body along with medical records, after organ or tissue retrieval, to the designated post-mortem centre and the post-mortem centre shall undertake the post-mortem of such cases on priority, even beyond office timing, so that the body is handed over to the relatives with least inconvenience.

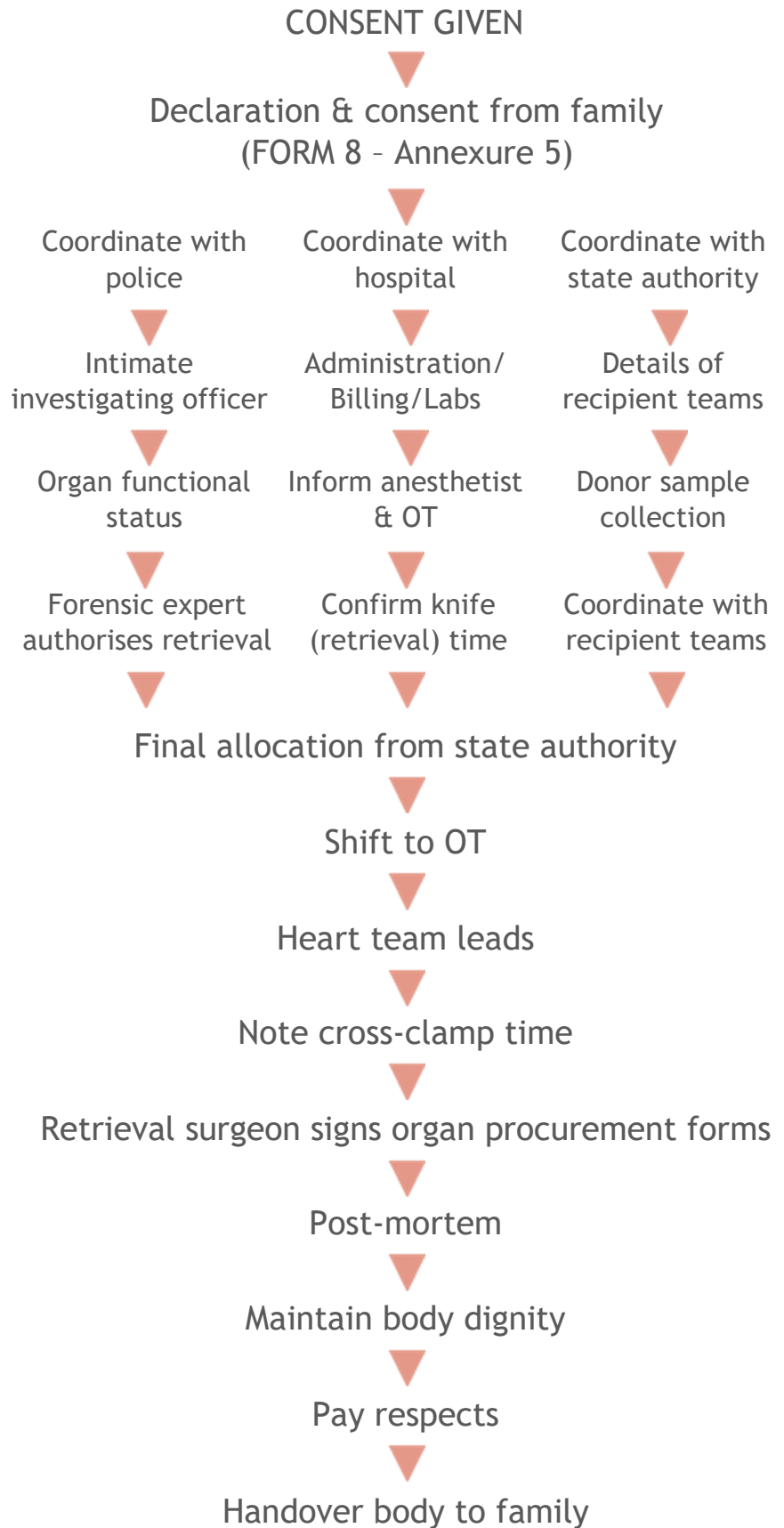


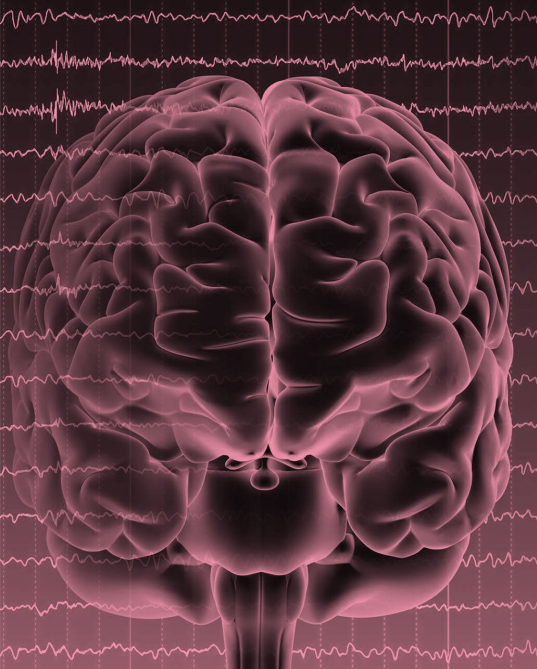
Deceased Organ Donation Pathway (Part 1)





Deceased Organ Donation Pathway (Part 2)





Annexure 5

FORM 8 Declaration and Consent Form

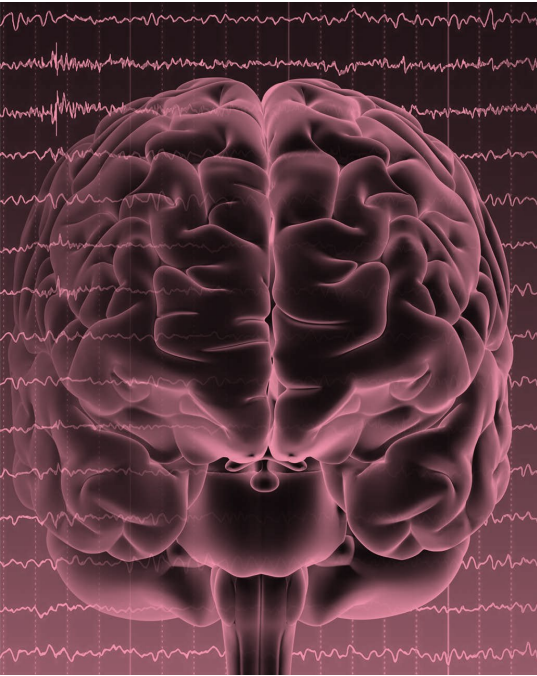
(To be filled by near relative or lawful possessor of brainstem dead person)
[See rules 5(1)(b), 5(4)(b) and 5(4)(d)]

I _____ S/o / D/o / W/o _____
aged _____ resident of _____
in the presence of persons mentioned below, hereby declare that:

1. I have been informed that my relative (specify relation) _____ S/o / D/o / W/o _____ aged _____ has been declared brainstem dead / dead.
2. To the best of my knowledge (Strike off whichever is not applicable):
 - a. He / She (Name of the deceased) _____ had/had not, authorised before his/her death, the removal of _____ (Name of organ/tissue/both) of his/her body after his/her death for therapeutic purpose. The documentary proof of such authorisation is enclosed/not available.
 - b. He / She (Name of the deceased) _____ had not revoked the authority as at No.2 (a) above (If applicable).
 - c. There are reasons to believe that no near relative of the said deceased person has objection to any of his/her organs/tissue being used for therapeutic purposes.
3. I have been informed that in the absence of such authorisation, I have the option to either authorise or decline donation of organ/tissue/both including eye/cornea of _____ (Name of the deceased) for therapeutic purposes. I also understand that if corneas/eyes are not found suitable for therapeutic purpose, then may be used for education/research.
4. I hereby authorise / do not authorize removal of his/her body organ(s) and/or tissue(s), namely (Any organ and tissue / Kidney / Liver / Heart / Lungs / Intestine / Cornea / Skin / Bone / Heart Valves / Any other; please specify) _____ for therapeutic purposes. I also give permission for drawing of a blood sample for serology testing and am willing to share social/behavioural and medical history to facilitate proper screening of the donor for safe transplantation of the organs/tissues.

Date: _____ Signature of near relative /
person in lawful possession of the dead body, and
address for correspondence*

Place: _____ Telephone No: _____ Email: _____



*In case of the minor the declaration shall be signed by one of the parents of the minor or any near relative authorised by the parent. In case the near relative or person in lawful possession of the body refuses to sign this form, the same shall be recorded in writing by the Registered Medical Practitioner on this Form.

(Signature of Witness 1)

Shri/Smt./Km _____ S/o / D/o / W/o _____

Aged _____ resident of _____

Telephone No: _____ . Email: _____

(Signature of Witness 2)

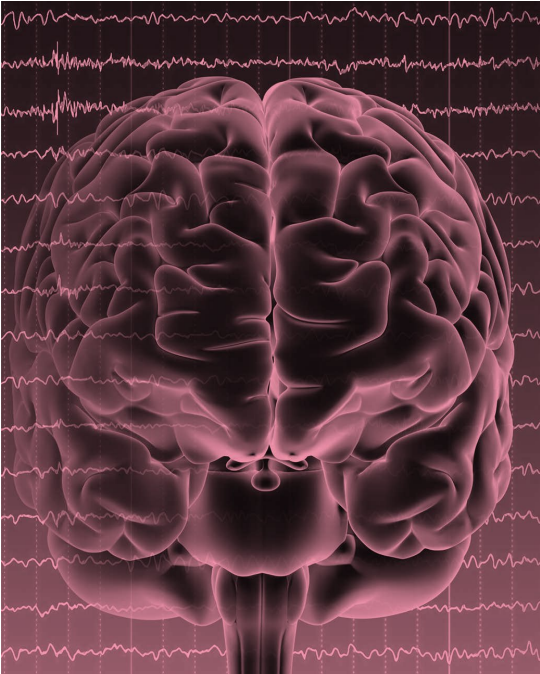
Shri/Smt./Km _____ S/o / D/o / W/o _____

Aged _____ resident of _____

Telephone No: _____ . Email: _____

Annexure 5 (Contd)





Annexure 6

FORM 10 For Certification of Brainstem Death

(To be filled by the board of medical experts certifying brainstem death)
[See rules 5(4)(c) and 5(4)(d)]

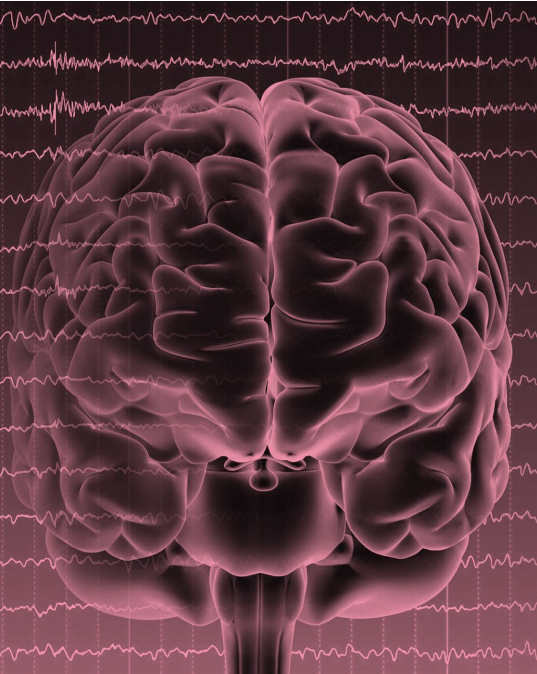
We, the following members of the Board of medical experts after careful personal examination hereby certify that Shri/Smt/Km _____ aged about _____ S/o / W/o / D/o _____ Resident of _____ is dead on account of permanent and irreversible cessation of all functions of the brainstem. The tests carried out by us and the findings therein are recorded in the brainstem death Certificate annexed hereto.

Dated _____

Signatures:

1. R.M.P. in charge of the Hospital
In which brainstem death has occurred. _____
2. R.M.P. nominated from the panel of names
sent by the hospitals and approved by the
Appropriate Authority. _____
3. Neurologist/Neurosurgeon _____
4. R.M.P. treating the aforesaid
deceased person _____

(Where Neurologist/Neurosurgeon is not available, any Surgeon or Physician and Anesthetist or Intensivist, nominated by Medical Administrator In charge from the panel of names sent by the hospital and approved by the Appropriate Authority shall be included)



Annexure 6 (Contd)

BRAINSTEM DEATH CERTIFICATE

A. PATIENT DETAILS

1. Name of the patient: Mr./Ms. _____
S/o / D/o / W/o Mr./Ms. _____
Sex _____ Age: _____
2. Home Address: _____

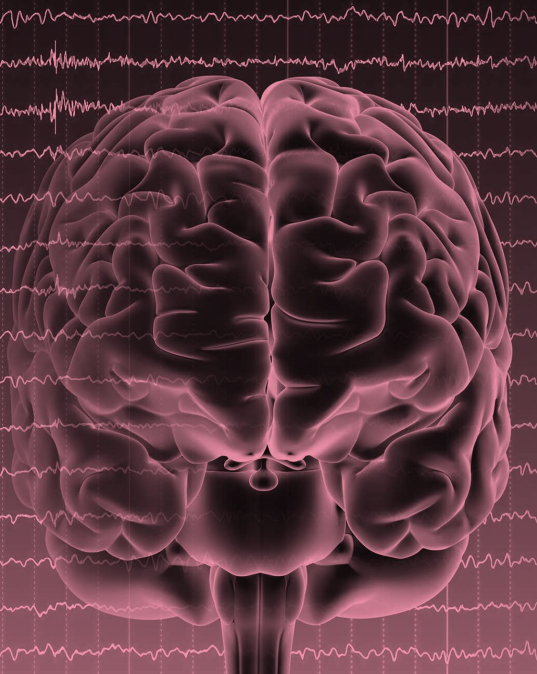
3. Hospital Patient Registration Number (CR No): _____
4. Name and Address of next of kin or person responsible for the patient: _____
(if none exists, this must be specified)
5. Has the patient or next of kin agreed to any donation of organ and/or tissue?: Yes _____ No _____
6. Is this a Medico-legal Case?: Yes _____ No _____

B. PRE-CONDITIONS

1. **Diagnosis:** Did the patient suffer from any illness or accident that led to irreversible brain damage?
Specify details: _____

Date and time of accident/onset of illness: _____
Date and onset of non-reversible coma: _____
2. **Findings of Board of Medical Experts:**

	<u>First Medical Examination</u>	<u>Second Medical Examination</u>
1) The following reversible causes of coma have been excluded: Intoxication (Alcohol) Depressant Drugs Relaxants (Neuromuscular blocking agents) Primary Hypothermia Hypovolaemic shock Metabolic or endocrine disorders Tests for absence of brainstem functions		



First Medical
Examination

Second Medical
Examination

Annexure 6 (Contd)

- 2) Coma
- 3) Cessation of spontaneous breathing
- 4) Pupillary size
- 5) Pupillary light reflexes
- 6) Doll's head eye movements
- 7) Corneal reflexes (Both sizes)
- 8) Motor response in any cranial nerve distribution, any responses to stimulation of face, limb or trunk.
- 9) Gag reflex
- 10) Cough (Tracheal)
- 11) Eye movements on caloric testing bilaterally.
- 12) Apnoea tests as specified.
- 13) Were any respiratory movements seen?

Date and time of first testing: _____

Date and time of second testing: _____

This is to certify that the patient has been carefully examined twice after an interval of about six hours and on the basis of findings recorded above, Mr./Ms, _____ is declared brainstem dead.

Date: _____

Signatures of members of Brainstem Death (BSD) Certifying Board as under:

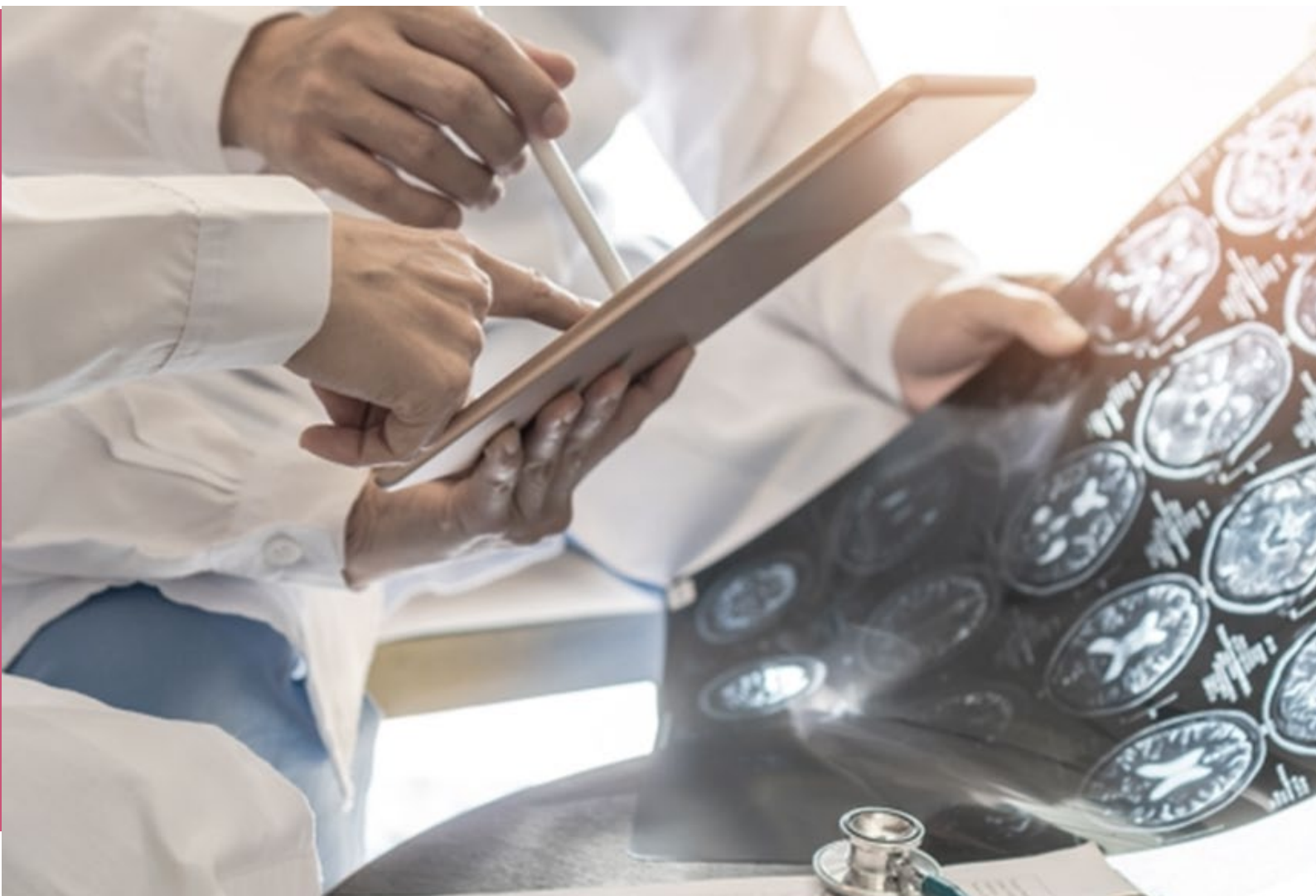
1. Medical Administrator In charge of the hospital
2. Authorised specialist
3. Neurologist/Neurosurgeon
4. Medical Officer treating the Patient

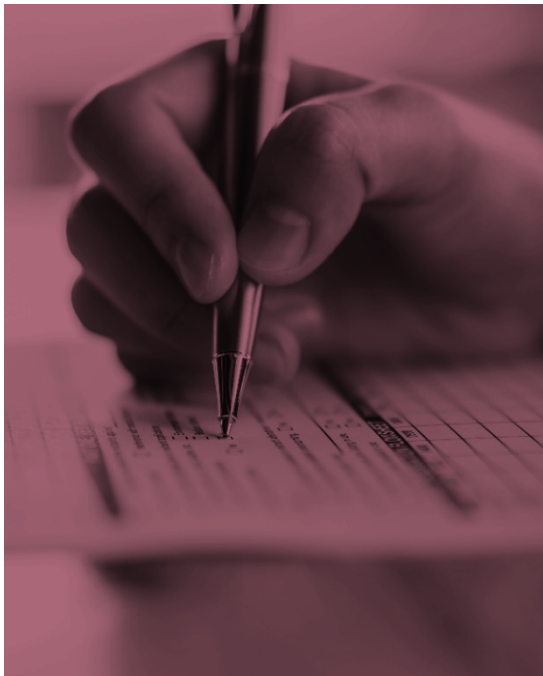
NOTE.

- I.** Where Neurologist/Neurosurgeon is not available, then any Surgeon or Physician and Anesthetist or Intensivist, nominated by Medical Administrator In charge of the hospital shall be the member of the board of medical experts for brain-stem death certification.
- II.** The minimum time interval between the first and second testing will be six hours in adults. In case of children 6 to 12 years of age, 1 to 5 years of age and infants, the time interval shall increase depending on the opinion of the above BSD experts.
- III.** No.2 and No.3 will be co-opted by the Administrator In charge of the hospital from the Panel of experts (Nominated by the hospital and approved by the Appropriate Authority).

Annexure 6

(Contd)





Medico-Legal Forms for Organ Donation in Tamil Nadu

FORM I

Police Intimation Form

From

Chief Medical Officer / Residential Medical Officer
_____ Hospital

(Address)

To

The Inspector of Police / Investigating Officer
_____ Police Station

(Address)

Sir,

1. Mr./Ms. _____ aged _____ years of

_____ (Address)
sustained injuries (details) and was admitted in _____
_____ hospital on _____ (dd/mm/yy).
2. The near relatives of the patient have expressed a positive inclination to donate the organs of the patient in the event of the patient's Brain Death. The Brain Death Certification process is now in progress, as per the Transplantation of Human Organs Act, 1994 (Central Act 42 of 1994).
3. You are requested to immediately come to the hospital in order to expedite the conduct of the inquest and carry out necessary procedures to enable the Deceased Organ donation.

Yours faithfully



Medico-Legal Forms for Organ Donation in Tamil Nadu

FORM II

Organ(s) Functional Status Certificate

This is to state that Mr./Ms. _____
S/o / D/o / W/o _____ who had been
admitted in our hospital on _____ (date) (IP No. _____)
has been certified as Brain Dead on _____ (date) at _____
A.M. / P.M. as per the THO Act, 1994

It is certified that the following organs of this Brain Dead potential
organ donor are in functioning status:

- 1.
- 2.
- 3.
- 4.
- 5.

(Signature by any one of the doctors authorized by the Medical
Superintendent of the hospital)

FORM III

Organ Retrieval Authorization Form

I / We, Dr. _____ hereby authorize, as per Section 6
of the Transplantation of Human Organs Act, 1994, (Central Act 42 of
1994) for the retrieval, of the under mentioned organs, for the
purpose of transplantation from the Brain Dead Deceased of
Mr./Ms. _____ S/o / D/o / W/o _____
whose Brain Death was certified as per the said Act and the
functioning status of the organs intended to be retrieved for
transplantation purpose have been certified.

Organs authorized for retrieval:

- 1.
- 2.
- 3.
- 4.
- 5.

(Signature of the Post-mortem Medical Officer who will conduct Post-
mortem)

National Organ and Tissue Transplant Organisation (NOTTO)

ADDRESS	HEAD	CONTACT
NOTTO, 4th Floor NIOP Building (ICMR) Safdarjung Hospital Campus, New Delhi-29	Dr. Anil Kumar Director, NOTTO	011-26164770 dir@notto.nic.in

Regional Organ and Tissue Transplant Organisation (ROTTTO)

ROTTTO	CENTRE	HEAD	CONTACT
ROTTTO NORTH-EAST	Gauhati Medical College & Hospital, Guwahati Assam	Prof. (Dr) Achyut Chandra Baishya Director – ROTTO	9954075427 achbaishya@gmail.com
		Dr Abhijit Sharma Superintendent, GMCH, Guwahati	9954009929 drabhijitsarmaghy@gmail.com
ROTTTO EAST	IPGME&R, Kolkata, West Bengal	Prof. (Dr) Maminoy Bandyopadhyay Director ROTTTO (East)	033-22041498 rottoipgmer@gmail.com
ROTTTO NORTH	PGIMER, Chandigarh	Dr Vipin Koushal Nodal Officer	0172-2756666 rottopgimerchd@gmail.com
ROTTTO WEST	Seth G.S. Medical College K.E.M. Hospital, Mumbai, Maharashtra	Dr Sujata Patwardhan Director In-charge	9819075202 rottosotto.mumbai@gmail.com sujata.patwardhan@rediffmail.com
ROTTTO SOUTH	Madras Medical College, Chennai, Tamil Nadu	Dr N. Gopalakrishnan Member secretary TRANSTAN	organstransplant@gmail.com

State Organ and Tissue Transplant Organisation (SOTTO)

UNDER ROTTO NORTH-EAST

STATE	CENTRE	HEAD	CONTACT
Assam	Gauhati Medical College & Hospital	Prof. (Dr) Achyut Chandra Baishya, Director, Principal cum Chief Superintendent, GMCH, Guwahati	9954075427 rottoguwahati@gmail.com
		Dr Abhijit Sharma Superintendent, GMCH, Guwahati	achbaishya@gmail.com
Tripura		Dr Manirul Islam Nodal Officer	drmanirul83@gmail.com
Mizoram	Zoram Medical college	Dr C. Vankhuma Officer on special duty	7042758768 zmc@zmc.edu.in

UNDER ROTTO EAST

STATE	CENTRE	HEAD	CONTACT
Odisha	SCB Medical College and Hospital	Dr Bibhuti Bhusan Nayak Joint Director	9437005437 jd.odisha.sotto@gmail.com otto.scb.odisha@gmail.com
Bihar	IGIMS, Patna	Prof. (Dr) Manish Mandal Medical Superintendent Cum Chairman SOTTO	9234753874 9473191826 sottobihar@igims.org
Jharkhand	RIMS, Ranchi	Prof. (Dr) Kameshwar Prasad Director, RIMS	91-651-2776000
		Dr Rajiv Ranjan Nodal Officer	9039129569 angdaan@hotmail.com
West Bengal	IPGME&R, Kolkata	Prof. (Dr) Maminoy Bandyopadhyay Director, ROTTO (East)	033-22041498 rottoipgmer@gmail.com
Sikkim		Dr Chintamani Sharma PCC cum Add. Medical Sup II, STNM, Gangtok	ams2stnm@gmail.com

UNDER ROTTO NORTH

STATE	CENTRE	HEAD	CONTACT
Haryana	PGIMS, Rohtak	Dr Sukhbir Singh	9467512233 sotto.haryana@uhsr.ac.in drbrar1980@gmail.com, director.pgims@uhsr.ac.in
Jammu and Kashmir	Govt. Medical College, Jammu	Dr Sanjeev Puri Joint Director Dr Elias Sharma Nodal officer	9419132864 sotto-jk@jkgov.in sottojk1@gmail.com
Rajasthan	SMS Hospital, Jaipur	Dr Amarjeet Mehta Joint Director	9829006391 sottojaipur@gmail.com sottojaipur@rajasthan.gov.in
Uttar Pradesh	SGPGI, Lucknow	Dr Rajesh Harshvardhan Nodal Officer	upsotto.dohasgpgims@gmail.com drrharsvardhan@yahoo.co.in
Punjab	GMC, Patiala	Dr Harbhupinder Singh Nodal Officer	8146564568 hssandhudr@gmail.com
Himachal Pradesh	IGMC, Shimla	Dr Shomin Dhiman Joint Director, Hospital Administrator, IGH, Shimla Prof. Puneet Mahajan Nodal officer	9418066694 sotto.himachal@gmail.com shomindhiman@gmail.com 9418151939 puneetdr1@gmail.com
Chandigarh (ROTTO-SOTTO)	PGIMER, Chandigarh	Dr Vipin Koushal Nodal Officer	0172-2756666, 5289 rottogpimerchd@gmail.com

UNDER ROTTO WEST

STATE	CENTRE	HEAD	CONTACT
Maharashtra	Seth G.S. Medical College K.E.M. Hospital	Dr Sujata Patwardhan, Director (In-charge)	9819075202 rottosotto.mumbai@gmail.com sujata.patwardhan@rediffmail.com
Gujarat	IKDRC	Dr Vineet V. Mishra Director Dr Pranjal Modi Convener, SOTTO Gujarat	7949017000 sottogujarat@gmail.com ikdrcits@ikdrcits.in
Goa	Goa Medical College	Dr Preeti Varghese Joint Director (Technical In-charge)	7875181284 sotto-goa@gov.in
Madhya Pradesh	MGM College	Dr Manish Purohit Nodal Officer	8109671170 sottomp@gmail.com manishpurohit75@gmail.com sotto.madhyapradesh@gmail.com
Dadar & Nagar Haveli and Daman & Diu	Shri Vinoba Bhave Civil Hospital	Dr Jigna Current In-charge	9904300022 clinicalestablishment2014@gmail.com
Chhattisgarh		Dr Vinit Jain	sotto-cg@cg.gov.in

UNDER ROTTO SOUTH

STATE	CENTRE	HEAD	CONTACT
Kerala	Govt. Medical College, Thiruvananthapuram	Dr Noble Gracious Executive Director cum Member Secretary (K-SOTTO)	9446390313 ed.ksotto@kerala.gov.in ed.ksotto@gmail.com noble.gracious@tmc.kerala.gov.in
Andhra Pradesh	Jeevandan Andhra Pradesh O/o Directorate of Medical Education	Dr M.Raghavendra Rao Chairman, Jeevandan & DME Dr Nagamani Joint Director	0866-2576648 9246128888 jeevandanap2015@gmail.com
Puducherry	IGGGH AND PGI PUDUCHERRY	Dr K. Kumar Nodal Officer Dr Angeline Neetha Radjou	sottopuducherry@gmail.com snotpy@gmail.com vasudevans39801@gmail.com pdyghnephro@gmail.com
Karnataka	Jeevasarthakathe	Dr Rajni, Joint Director Member Secretary	9448613666 jeevasarthakathe@gmail.com
Tamil Nadu	TRANSTAN	Dr N. Gopalakrishnan Member secretary TRANSTAN	organstransplant@gmail.com
Telangana	Jeevandan Office, Nizam Institute of Medical Sciences, Punjagutta, Hyderabad	Dr G. Swaranlata In-charge	8977115888 jeevandan.telangana@gmail.com



Additional Readings

- ▶ **National Organ Transplant Programme (NOTP) Guidelines**, National THOTA and NOTP Cell, Directorate General of Health Services, Ministry of Health & family Welfare, Govt. of India, Nirman Bhawan, New Delhi
[https://notto.gov.in/WriteReadData/Portal/News/772_1_final_BOOK.pdf]
- ▶ Thyagarajan, Ishwarya; Kanvinde, Hemal; Shroff, Sunil; Sahi, Muneet Kaur. **Organ Donation and the Medicolegal Aspects: A Process Analysis Study of the Indian States - Observational Study**. *Indian Journal of Transplantation* 16(2): p 184-188, Apr–Jun 2022. | DOI: 10.4103/ijot.ijot_59_21
[https://journals.lww.com/ijot/Fulltext/2022/16020/Organ_Donation_and_the_Medicolegal_Aspects_A.8.aspx]
- ▶ **Training of Trainers - Role of Police in Brain Death and Organ Donation. Resource Manual - MOHAN Foundation, Chennai**
[<https://www.mohanfoundation.org/proceedings/pdf/Police-Manual-ver1.pdf>]
- ▶ **NTORC in Maharashtra - State Government Resolution**
[<https://www.mohanfoundation.org/government-orders/Mahashtra-GOs-NTROC-Regulation.pdf>]
- ▶ **Non-Transplant Organ Retrieval Centres (NTORC) in Kerala - State Government Order**
[http://www.dme.kerala.gov.in/pdf/gov_orders/go_ms_38_2012.pdf]
- ▶ **Jeevandan (Deceased Transplantation Programme), Government of Telangana - Application for Registration of Non-Transplant Organ Harvesting Centres (NTOHC)**
[<https://jeevandan.gov.in/PDF's/NTOHC-Form.pdf>]



Learning opportunities with MOHAN Foundation

MOHAN Foundation offers a variety of online courses covering diverse aspects of organ donation and transplantation.

In addition, courses designed to educate the general public about organ donation, transplantation and preventing organ failure are also available.

More information at: el.mohanfoundation.org

Handbook compiled for MOHAN Foundation by
Ms Sujatha Suriyamoorthi, Dr Muneet Kaur Sahi and Ms Pallavi Kumar

Designed by Sundeep Kumar

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