

# The Importance of Establishing a National Tissue and Organ Procurement Office to Increase Tissue and Organ Donations



**Jorge Morales Pedraza\***

*Morales Project Consulting, Vienna, Austria*

**Submission:** May 23, 2022; **Published:** June 09, 2022

**\*Corresponding author:** Jorge Morales Pedraza, Morales Project Consulting, Vienna, Austria

## Abstract

The donation of tissues and organs increases significantly when the community is convinced of the importance of such matter and when tissue banks and organ procurement organizations work together under a unified office to procure organs and tissues at donor sources. To achieve this important goal, national competent health authorities should consider establishing a National Tissue and Organ Procurement Office. The mandate of this office should include the coordination, supervision, support, control, and promotion of the widest possible cooperation between tissue banks and organ procurement organizations operating in the country with competent national health authorities, private and public hospitals, research medical institutions, nuclear authorities, the press, the religious and community leaders, and other medical institutions and facilities dealing with the procurement of organs and the procurement and processing of tissues.

**Keywords:** Tissues; Organs; Tissue banks; Organ procurement organizations; Donor sources; World Health Organization; Competent national health care authorities; Community and religious leaders

## Introduction

The donation of tissues and organs increases significantly when the community is convinced of the importance of such matter and when tissue banks and organ procurement organizations work together to procure organs and tissues at donor sources. To achieve this goal, it is convenient that national competent health care authorities consider establishing a central office to coordinate, supervise, control, support, and promote the cooperation among tissue banks and organ procurement organizations operating in the country with donor sources to procure tissues and organs from potential donors. The activities of this office should include cooperation with competent national health care authorities, private and public hospitals, research medical institutions, nuclear authorities, the media, the religious and community leaders, and other medical institutions and facilities dealing with the procurement of organs and the procurement and processing of tissues not only in the country but in other countries in different regions as well.

The cooperation between tissue banks and organ procurement organizations within the country and abroad should include the widest possible sharing of relevant information vital for medical practice and scientific research studies. Sharing this information would also facilitate prompt action in an emergency situation affecting a country or group of countries, such as

earthquakes, tsunamis, nuclear accidents, wars, and internal conflicts. In some of these events, tissues could be needed in great quantities for their use in certain medical treatments for the population affected. Why does the international community need this type of cooperation? Worldwide, hundreds of tissue banks and organ procurement organizations operate in many countries. Some of them have a great experience using tissues in certain medical treatments and organ transplantation activities. However, a lack of coordination between tissue banks and organ procurement organizations could limit the number of tissues and organ donations. In some countries, these two organizations carry out their activities independently, affecting the number of tissues and organs that could be procured. According to the World Health Organization (WHO) home page, in 50 years, tissue and organ transplantation has become a successful worldwide medical practice. However, there are large differences between countries regarding access to suitable tissues and organs transplantation and the safety, quality, and efficacy of donation and transplantation of tissues and organs [1]. It is important to stress that every donor situation is different. Some donors may be able to donate one or more organs, while others may donate only one organ or none but could donate several tissues that could also save lives.

For organ transplantation, an international organization called "International Registry in Organ Donation and Transplantation

(IRODaT) collects information about organ donations and transplantation worldwide. It is a database that provides information by country of donation and transplantation activity [2]. Regrettably, no similar international organization collects information worldwide on tissue donations and processed tissues used in medical practices and research activities. This situation is not helping national, regional, and international efforts to increase tissue donations in some countries. Some tissues and organs were procured in one country and used in another, and in not all cases, the international community can be sure that the processing of some of these tissues follows the highest possible international standards. To avoid inappropriate processing of tissues, all tissue banks should share relevant information regarding the quality systems used, the code of practice in force, the coding system utilized, the technique for tissue sterilization applied, the problems encountered, and the solution implemented.

The main objective of the present paper is to propose the establishment of a National Tissue and Organ Procurement Office to increase the current level of coordination, supervision, control, support, and promotion of tissues and organ donations in the country. This cooperation aims:

- To increase the working relationship between tissue banks and organ procurement organizations and between them and hospitals and other medical facilities during the procurement of organs and tissues with the purpose of increasing tissue and organ donations.
- To train tissue banks operators in all activities that a tissue bank should carry out during the processing of tissues to ensure that they are not contaminated during the mentioned process.
- To supply high-quality tissues to tissue banks operating in a country without the appropriate processing and sterilization facilities, particularly in a special situation or emergency, by other tissue banks operating in other countries.
- To improve the relationship between this office and the media and community leaders.

It is important to stress that organ and tissue donation requires an institutional structure to identify potential donors, obtain consent for tissues and organ donations from potential donor families and legal representatives, procure the organs and tissues at donor sources, and distribute them for transplantation to the transplant medical teams. The central factor in successful organ procurement is timely information about potentially suitable donors. Only a very small percentage of deaths can lead to an organ donation, and the window of time available for action is short. Tissue donation has more opportunities for success because they are less regulated, the window of time available for action higher than in the case of organ, and tissues are easier to procure than organs. Cooperation between hospital personnel, specifically doctors and nurses in intensive care units

(ICUs), and tissue banks and organ procurement organizations is essential. A referral from these professionals (i.e., notification that a potential donor is under treatment) is required for the donation process to begin and be carried out successfully. Organ procurement organizations and tissue banks typically spend more time encouraging doctors and nurses to make referrals than organ and tissue procurement activities as such. This persuasion takes the form of in-service training sessions, one-on-one visits, and visits to the ICUs themselves. Success in obtaining referrals is the key determinant of successful organ and tissue procurement [3].

The second factor of great importance in increasing tissue and organ donations is targeting appropriate donor sources. Not all hospitals are equally good sources of potential donors. Some see little trauma, and some cannot make brain-death determinations. Tissue banks and organ procurement organizations that target their professional education efforts where the return can be the greatest are likely to be more successful than those that work with every hospital in their area [4]. The final step in the tissue and organ procurement process is obtaining permission from potential donor families or legal representatives for tissue and organ donation. This is a very sensitive step within this process. Families of potential donors have suffered a terrible loss. For this reason, some tissue banks and organ procurement organizations prefer to have their own experienced staff approach the potential donor families and legal representatives to convince them of the importance of tissue and organ donation. Others depend more heavily on hospital staff to carry out this sensitive activity. All depend on the physician's skill, particularly their availability to inform the family that their relative has died and convince potential donor families or legal representatives to accept donations from tissues and organs [4].

### Expected achievements

The expected achievements are, among others, the following:

- To promote the establishment of a National Tissues and Organs Procurement Office, with the responsibility for carrying out several activities related to the procurement of tissues and organs at the national level.
- To promote the widest possible cooperation and the sharing of information among tissue banks and organ procurement organizations operating in the country during the procurement of tissues and organs at donor sources.
- To promote the establishment of an effective donor referral system by which tissue banks and organ procurement organizations can be informed or notified simultaneously of potential donors when a death occurs at the donor sources.
- To promote the widest possible sharing of information among tissue banks and organ procurement organizations operating in different countries on the availability of tissues and organs for transplantation or other medical treatments and research activities.

v. To support the adoption of a joint training program for the education of staff working in different tissue banks and organ procurement organizations or donor sources within the country and abroad.

vi. To adopt a public awareness strategy to guide organizing and running public and professional awareness campaigns to increase tissue and organ donations within the community [5].

vii. To promote and support the establishment of online databases on the availability of tissues and organs ready for transplantation at the national level and, where possible, at regional and international levels as well. These databases aim to provide the scientific and medical communities at all levels with the necessary information about the activities carried out by tissue banks and organ procurement organizations operating in the country and the availability of tissues and organs ready to be used in certain medical treatments.

Without a doubt, all organ transplants are a save-life treatment. However, the transplantation of tissues for specific medical treatment can also save lives and restore vital functions, particularly when other medical treatments of similar effects do not exist. In both cases, transplantation requires the coordination of different institutions and organizations involved in procuring tissues and organs from the different hospitals and other medical facilities that perform surgical procedures with graft-type input requirements [6]. All national online databases established by different countries should be open to researchers and medical personnel working in other countries within or outside the region. Researchers and medical personnel may check the availability of a given tissue in real-time in specific countries necessary to carry out their work effectively. Researchers and medical personnel should also be aware of specific research activities and results already achieved by tissue banks and organ procurement organizations in each country. The aim is to avoid repetition of activities or failures and the knowledge of training activities that are currently carried out or will be carried out in the future in the country.

### **The Impact of the National Tissue and Organ Procurement Office activities on the level of tissue and organ donations**

To increase the donation of tissues and organs within the community and to promote regional and international cooperation in tissue and organ transplantation, national competent health care authorities in each country should consider, if this type of office has not yet been established, the possibility of establishing a National Tissue and Organ Procurement Office to act as the focal point for tissue banking and organ procurement in the country.

The main role of this office is to act as the central office for the coordination, supervision, control, support, and promotion of tissue and organ donations and transplantation within the

country, and to promote the widest possible cooperation with other health care authorities at regional and international levels. Other responsibilities of the mentioned office could be, among others, the following:

a. The promotion of the widest possible sharing of information and experience in the procurement, processing, storage, sterilization, distribution, and use of tissues in certain medical treatments and the procurement and transplantation of organs.

b. The establishment of an online database containing relevant information on the procurement, processing, sterilization, storage, distribution, and use of tissues, the procurement and transplantation of organs, the availability of tissues, and the main problems encountered, and the solution applied.

c. The promotion of the widest possible cooperation among tissue banks and organ procurement organizations with hospitals and other medical institutions.

d. To support the widest possible cooperation with the press and the community leaders to share information about the importance of tissue and organ donations in saving lives or improving the quality of life for people suffering from burns, skin, and bone cancer, among other diseases.

e. The development of new technologies for the procurement, processing, sterilization, storage, distribution, and use of tissues in certain medical treatments, and the procurement, distribution, and use of organs for transplantation.

f. To assist national competent health care authorities in elaborating norms and guidelines for tissue and organ procurement at donor sources and for tissue and organ transplantation activities in hospitals.

g. To assist national competent health care authorities in elaborating norms and guidelines for tissue processing.

### **National Tissue and Organ Procurement Office working procedures**

The working procedures of the National Tissue and Organ Procurement Office proposed are the following:

i. After being notified of impending brain death, brain death, or cardiac death by hospitals, the National Tissue and Organ Procurement Office will evaluate the information received about the potential of tissue and organ donation.

ii. If the potential donor meets all the requirements to become a donor, then the National Tissue and Organ Transplant Office should inform, at the same time and as soon as possible, tissue and organ procurement teams of this possibility. These procurement teams should study the information received and decide what type of procurement can be carried out and should be ready to jointly initiate the

tissues and/or organs procurement process following the guidelines approved by the national competent health care authorities on the subject, immediately that the potential donor family or legal representative gives their consent or authorization for tissues and/or organs donation.

iii. The National Tissue and Organ Transplant Office staff, working in close coordination with the tissue and organ procurement teams and hospital staff, should request potential donor family or legal representatives' consent or authorization for organ or/and tissue donation in the order of priority established by the National Tissue and Organ Transplant Office, following the national competent health care authorities' guidelines.

iv. After receiving the authorization from the potential donor family or legal representative, the procurement teams can then carry out their activities at donor sources following the competent national health care authorities' guidelines.

The National Tissue and Organ Procurement Office should ensure that tissue and organ procurement teams carry out their work with the maximum discretion and sensitivity concerning the families' circumstances, views, and beliefs of the potential organ and tissue donors. Clear policies and procedures should guide regular communication between medical examiner/coroners, the National Tissue and Organ Procurement Office, tissue banks and organ procurement organizations, and tissue processors to facilitate the continuous improvement of processes and enhance mutual understanding [7]. All patient medical information, interviews, reports, statements, memoranda, autopsy reports, and any other data obtained or created by a tissue bank or organ procurement organization from the review of the potential donor's medical record should be privileged and confidential and should be used by the tissue bank or organ procurement organization or by the National Tissue and Organ Procurement Office only for the purposes established by the regulations adopted by the competent national health care authorities [8].

### Conclusion

The establishment of a National Tissue and Organ Procurement Office with the mandate of coordinating, supervising, controlling, and promoting the widest possible cooperation between tissue banks and organ procurement organizations with donor sources at the national level and, when necessary, to regional and international levels, is a proposal that deserves the attention of the national competent health care authorities of the different countries in order to increase tissue and organ donations, in case this type of office has not been already established.

### References

1. World Health Organization home page (2022).
2. International Registry in Organ Donation and Transplantation (IRODaT) (<https://www.irodat.org/>, 2022).
3. Prottas Jeffrey M (1989) The Organization of Organ Procurement. *Journal of Health Politics, Policy, and Law* 14(1): 41-55.
4. Encyclopedia.com (2019) <https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/organ-and-tissue-procurement-i-medical-and-organizational-aspects>.
5. Morales Pedraza J (2012) The use of the ionizing radiation technique for tissue sterilization: The International Atomic Energy Agency (IAEA) Nova Science Publishers, New York. ISBN 978-1-61324-368-8.
6. Verdugo-Avello Francisco J, Wychowanec Jacek K, Jimenez Matias, Jimenez Silvana, and Gutierrez Soraya (2021) Current concepts for tissue transplant services for developing countries. *Cell Tissue Bank* 22 (323-337).
7. (2013) SWGMDI's Standards for Interactions Between Medical Examiner/Coroner Offices and Organ and Tissue Procurement Organizations and Eye Banks; SWGMDI's Organ and Tissue Procurement Committee.
8. The importance of establishing an international network of tissue banks and regional tissue processing centers; Springer ISSN 1389-9333; *Cell and Tissue Banks* DOI 10.1007/s10561-013-9381-1; June 2013.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/IJCSMB.2022.06.555708](https://doi.org/10.19080/IJCSMB.2022.06.555708)

#### Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats  
( Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>