

DUTIES OF AN ORGAN PROCUREMENT ORGANIZATION WITHIN THE ACTIVITIES OF THE INTRAHOSPITAL ORGAN DONATION COMMISSION

Atribuições de uma Organização de Procura de Órgãos nas atividades da Comissão Intra-Hospitalar de Doação de Órgãos

Atribuciones de una Organización de Búsqueda De Órganos en las actividades de la Comisión Intrahospitalaria de Donación de Órganos

Description or Evaluation of Experiences

ABSTRACT

Objective: To describe the experience of an Organ Procurement Organization (OPO) when performing tasks for the Intra-Hospital Commission on Organs and Tissue Donation for Transplantation (Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante – CIHDOTT). **Data Synthesis:** Experience report of an OPO headquartered at a large hospital in Southern Brazil between the years 2011 and 2015. The implementation of the OPO at the hospital occurred along with the creation of routines, protocols and the monitoring of performance indicators of the organization. After that, strategies for improving organ donation could be developed. **Conclusion:** After taking over the activities of the Intra-Hospital Commission on Organs and Tissue Donation for Transplantation, the Organ Procurement Organization was effective in contributing to the increase of organ donations in the hospital, which became a reference in the State.

Descriptors: Tissue and Organ Procurement; Transplantation; Tissue Donors.

RESUMO

Objetivo: Descrever a experiência de uma Organização de Procura de Órgãos (OPO) ao exercer as atividades da Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante (CIHDOTT). **Síntese dos dados:** Relato de experiência de uma OPO, sediada em um hospital de grande porte localizado na região sul do Brasil, entre os anos 2011 e 2015. Concomitantemente à implementação da OPO no respectivo hospital, deu-se a criação das rotinas, protocolos, bem como o início do monitoramento dos indicadores de desempenho da respectiva organização. A partir disso, pode-se elaborar estratégias para potencializar as doações de órgãos. **Conclusão:** Ao assumir as atividades da Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante, a Organização de Procura de Órgãos mostrou-se efetiva, contribuindo para o aumento das doações de órgãos no hospital, o qual tornou-se referência no Estado.

Descritores: Obtenção de Tecidos e Órgãos; Transplante; Doadores de Tecidos.

RESUMEN

Objetivo: Describir la experiencia de una Organización de Búsqueda de Órganos (OBO) al ejercer las actividades de la Comisión Intrahospitalaria de Donación de Órganos y Tejidos para Trasplante (CIHDOTT). **Síntesis de los datos:** Relato de experiencia de una OBO localizada en un hospital de gran porte en la región sur de Brasil entre los años 2011 y 2015. En paralelo a la implementación de la OBO en ese hospital se dio la creación de rutinas, protocolos así como el inicio de la monitorización de los indicadores de desempeño de la respectiva organización. A partir de eso se puede elaborar estrategias para potenciar las donaciones de órganos. **Conclusión:** Tras asumir las actividades de la Comisión Intrahospitalaria de Donación de Órganos y Tejidos para Trasplante, la Organización de Búsqueda de Órganos se mostró efectiva contribuyendo para el aumento de las donaciones de órganos en el hospital el cual se volvió referencia para el estado.

Descriptorios: Obtención de Tejidos y Órganos; Trasplante; Donantes de Tejidos.

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INTRODUCTION

Organ transplantation is currently used worldwide for the treatment of patients with organ failure and of those with chronic and terminal illnesses. However, such a treatment requires the obtainment of healthy organs, usually from deceased donors⁽¹⁾. Transplantation saves many people and improves their quality of life, but the lack of donors is a limiting factor for increasing this type of treatment; thus, patients on transplant waiting lists end up dying⁽²⁾. In the United States of America, around 119 thousand people are on the transplant waiting; on average, 22 people die every day waiting for an organ. From January to August 2016, the country obtained 10,485 organ donors and performed 22,121 transplants⁽³⁾. Among the countries of Europe, Spain ranks first in number of donors per million population (pmp), with a total of 39.7 donors pmp, followed by Croatia and Belgium, with 39.0 and 32.4 donors pmp, respectively⁽⁴⁾.

Brazil is second in the world in absolute number of kidney and liver transplants, behind only the United States of America. Additionally, it ranks 27th in organ donations in the worldwide scenario^(4,5). In order to keep this position and improve donation rates in the country, it is essential to create and recreate strategies aimed at improving organ donations and, consequently, transplants⁽⁶⁾. Although the organ donation rate has increased in recent years, it is still below the rates set by the Brazilian Association of Organ Transplantation (*Associação Brasileira de Transplante de Órgãos - ABTO*). In 2014, the projection was 15.0 pmp; however, the rate achieved was 14.2 pmp, which is 6% below what was expected in 2007. At the same time, there are discrepancies between the need for and the number of transplants performed in the same year – for instance, there were 5,639 kidney transplants, but the estimated need was around 11 thousand⁽⁶⁾.

In the same perspective, health professionals' engagement in the early identification of patients with potential brain death (BD) and the consent by families who are favorable to organ donation are crucial for the optimization of transplants⁽⁶⁾. In the first half of 2015, Brazil obtained 4,715 notifications from potential donors, but 3,359 of them (71%) did not become donors. Data confirm that the main cause of donation failure was family refusal, which accounted for 44% of failures; other reasons have also been reported, such as medical contraindication to organ donation and cardiac arrest⁽⁷⁾.

One of the strategies adopted by Brazil's Ministry of Health to increase the number of donors in the Brazilian territory was the consolidation of the Intra-Hospital Commission on Organs and Tissue Donation for Transplantation (*Comissão Intra-Hospitalar de Doação de*

Órgãos e Tecidos para Transplante – CIHDOTT) and of the Organ Procurement Organizations (OPO) in the years 2005 and 2009, respectively^(8,9). Both models have played an important role in this scenario since the 1990s. Although with different denominations, they share a main objective: to increase the number of donors and improve the quality of donated organs⁽¹⁰⁾.

The first ordinance that created the CIHDOTT was issued in 2000 and revoked in 2005 by Ordinance No. 1,752, which obliged its implementation in all public, private, and philanthropic hospitals with more than 80 beds⁽⁸⁾. In 2006, an ordinance was issued approving the technical regulation with the purpose of establishing the attributions, the duties, and the indicators of efficiency and of the potential organ donor related to the CIHDOTT⁽¹¹⁾. The current Legislation reinforces the attributions and purposes of these Commissions and classify them into three levels according to the complexity of each hospital: CIHDOTT I, II or III⁽¹²⁾.

The OPO is characterized by having a supra-hospital coordinating role in organizing and supporting hospitals under its responsibility in the organ and tissue donation processes. The ordinance that established the OPOs in Brazil recommends one OPO per every 2 million inhabitants, taking into account the geographical distribution of the population and the profile of each region⁽⁹⁾. The establishment of OPOs in Brazil was based on the US model of organ procurement. In the respective country, the OPOs are agencies responsible for promoting health across the population through organ transplantation. These agencies also point to the possibility of promoting and improving transplants and, consequently, the health of individuals through the training of health professionals involved in the organ donation process⁽¹³⁾. The number of transplants in the United States has been steady in the last years, which improves the quality of life, reduces morbidity, and improves the survival of the population⁽¹⁴⁾.

The OPO was established based on need to qualify the actions aimed at improving the organ donation process and increasing the number of BD notifications, effective donors and, especially, the number of transplants performed. Within this scenario, and in order to make actions effective, a number of duties must be carried by the OPO and CIHDOTT, both of which have the role of organizing a network for providing support to the hospitals where they are inserted.

Thus, the present study aimed to describe the experience of an Organ Procurement Organization (OPO) when performing tasks for the Intra-Hospital Commission on Organs and Tissue Donation for Transplantation (*Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante – CIHDOTT*).

DATA SYNTHESIS

This is an experience report on the implementation of an OPO in a large university hospital located in Southern Brazil.

The institution is a philanthropic general hospital that provides public and private health care. It has 713 beds, including 64 in adult intensive care units, 15 in pediatric intensive care units, and 56 beds in intermediate care units. The present study followed the ethical precepts established by Resolution No. 466/2012 of the National Health Council, guaranteeing the confidentiality of the institution and of those involved in the research⁽¹⁵⁾.

The OPO began its activities in the second half of 2011. Since then, the organization took over the tasks of the CIHDOTT – according to the ordinance that regulates the entire donation-transplant process, the OPO can perform these tasks in health facilities where it is inserted⁽¹²⁾. For its work team, a coordinating physician, two nurses and one administrative assistant were hired. All the professionals had a higher education degree and experience in the care and/or treatment of critically-ill patients.

The initial phase of the activities of the OPO consisted in scheduling a meeting with the technical director and the nursing the hospital. The objective of the meeting was the formal introduction of professionals with a view to consolidating the goals and objectives of the OPO. Secondly, nurses were introduced to the other managers of intensive care units (ICUs) and intermediate care units (ICUs) – these professionals would be responsible for future daily visits to these units. The following tools were provided to the OPO: a mobile telephone for contacting nurses, a conventional telephone line, a multifunction printer, two computers, and a corporate email for each professional. In the early days of the OPO, the coordinating physician and the nurses carried out training courses on hospital coordination of transplantation, family interview and communication in critical situations in order to improve the knowledge about the donation process.

In 2013, the hospital was honored achieving the highest number of donors in the state. In 2015, it was recognized as one of the hospitals that stood out in the donation process. It is believed that the increase in the number of donors in the hospital is a result of the work that the OPO has been carrying out since 2011, when it took over the responsibilities of the CIHDOTT. The OPO enabled the consolidation of the organ donation culture in the hospital and helped increase the number of transplants and improve the quality of life of those who received an organ.

Organization of the Administrative Processes

The development of the administrative processes took place along with the daily activities of the OPO. Firstly, the internal regulations were drawn up by the coordinating physician and the nurses listing the goals, the composition, the duties, and the working hours of the collaborators. This document was sent to the technical director and to the nursing supervisor of the hospital for approval. As it is a new sector in the hospital, Standard Operating Procedures (SOPs) and flowcharts were developed as daily activities were observed. In the first two months, SOPs and flowcharts were related to the following items were developed: early identification of the potential donor, family interview, maintenance of the potential donor, extraction of the organs in the surgical center, and others. An instrument was also designed to map all the deaths occurring in the hospital; the instrument addresses the following data: name of the deceased, hospital record, age, causes of death, time of death. These data are stored in a specific sector of the hospital and are collected daily by an administrative assistant of the OPO.

The indicators of potential efficient organ and tissue donations, as recommended by the current legislation⁽¹²⁾, were developed and implemented as of the fourth month. The goals were set based on the records of the donation process of the State of Rio Grande do Sul and Brazil. The monitoring of these indicators is the responsibility of the nurses and it is discussed in the monthly meeting held by the OPO. In the same sense, studies report that the monitoring of instruments that assess the quality of the donation process is fundamental for the identification of the bottlenecks that hinder organ donations^(16,17). In the OPO analyzed, if any indicator does not reach the established goal, a plan of action is drawn up and strategies for its improvement are outlined. However, in order to be successful, it is necessary that OPOs and CHIDOTTs monitor the indicators of the institutions in which they are inserted and promote the integration of the units that participate in the BD diagnosis and organ donation processes, favoring an agile and efficient outcome, particularly to the families of donors⁽¹⁸⁾. Given the above, the work logistics and the results achieved by the OPO corroborated with the maintenance of the Transplantation Policy in Brazil, which establishes the need to increase the number of BD notifications and, consequently, organ donations.

Care Activities

The care activities of the OPO are carried out by the nurses and are aimed at the early identification of patients with potential brain death. To do so, a daily active search is

performed in all ICUs, consisting in the examination of all patients under mechanical ventilation who are not under the influence of central nervous system depressants. When the nurse identifies a patient with a Glasgow Coma Scale (GCS) score equal to or less than seven (7), this patient begins to be monitored by the OPO. The patient's information, such as hospitalization unit, bed, name, diagnosis, and GCS score are recorded on a daily record sheet with the purpose of assessing the clinical evolution and prevent late diagnosis of BD. The visits to ICUs take place preferably in the morning shift; however, in order to facilitate contact with the OPO, an information poster was attached to the wall of these units; the poster contains telephone numbers, particularly the 24-hour on-call number.

Once a patient with potential BD is also identified by the ICU team, the OPO will give support in this process. If the first clinical test indicates BD, the OPO nurse must notify the Transplant Center and inform the data on the potential donor (PD); after that, an e-mail is sent with the tests that prove the positivity of that first test. During this period, the OPO nurse requests the physician responsible for the unit in which the PD is located to communicate the potential BD to the family. Then, the sector in which the complementary examination of the diagnosis of brain death will be carried out is contacted in order to accelerate the process so that it can be completed more quickly. When the diagnosis of BD is completed, the nurse communicates this information to the Transplant Center and, in the cases of eligible donors (ED) for donation, waits for the ICU medical team to report the death to the family.

After that, the OPO nurse takes the family of the ED to a quiet environment for carrying out the family interview. A relationship of support to the family is established with the clarification of doubts and later discussion about the possibility of donation. In cases where consent is given for the donation of organs, the legal procedures for the authorization are followed and, from that moment on, communication with the relatives is maintained so that the OPO nurse can keep them informed about the progress of the organ extraction process. After that, the nurse goes to the unit where the donor is to check their clinical conditions, and request and send tests to the laboratory, including serologic test, for further analysis. At this moment, procedures for the maintenance of the organ donor are also suggested. After sending the exams and obtaining response from the Transplant Center regarding the organs that will be extracted, the surgical center is scheduled. At the scheduled time, and together with the unit team, the OPO nurse collaborates with the transport of the donor to the surgical center and accompanies the whole process of extraction of the organs. At the end of the procedure,

the nurse contacts the family member responsible for the donor, informs which organs were donated and requests their attendance to the hospital for releasing the body. Upon arrival of the family members, the OPO nurse accompanies them in the preparation of the documents for the funeral and thanks again for the donation.

When the family does not authorize organ donation, the OPO nurse thanks for their attention and takes them to the hospital sector responsible for issuing the death certificate. After that, the decision is communicated to the Transplant Center and to the team of the unit in which the deceased is. Regardless of the donation, the OPO nurse follows the process and all copies of the documents and examinations regarding the death verification process, as well as the organ donation process, are archived by the OPO.

Educational Activities

As preconized in the current legislation, the OPO is also responsible for training multipliers in family embracement, brain death, maintenance of the potential donor and other aspects of the entire donation process⁽¹²⁾. After the sixth month of the implementation of the OPO, the training provided to hospital employees took place once a month for 1 (one) hour and was intended for professionals involved in ICUs. It was realized that training other professionals in other areas would be of great value as they could, at some point, come across the donation process, especially with regard to the family of the donor. Since then, the training has been adapted to the general public.

The internal training program for employees and frequent updating on the donation process intended for professionals working directly with critically-ill patients strengthened the work of the OPO. In the same perspective, educational actions focused on organ donation offered to health professionals make them capable of and motivated to being part of the process, with a significant impact on the quality of the donation processes in the institutions where they are inserted⁽¹⁹⁻²¹⁾. Studies show that the preparation of many health professionals who do not have knowledge about the organ donation and transplantation process contributes not only to their work environment; in addition, they become multipliers for society^(22,23).

In the year 2012, the idea of including the themes "brain death" and "organ donation" in the contents of the Nursing Introduction was taken to the nursing supervision. The Nursing Introduction is a mandatory activity offered by the hospital. It happens once or twice a month and aims to align information, routines, protocols, and the content needed by the new employee in his or her role. With the proposed theme, the nursing collaborators who started their activities in the hospital were trained for the donation

process. On-site training also took place in the units in which the BD diagnosis and organ donation processes were happening. Faced with this, the educational process is fundamental in this scenario because the participation of health professionals and society are determining factors for the success or failure of transplants⁽²⁴⁾.

CONCLUSION

The implementation of the Organ Procurement Organization in the hospital proved to be effective through the systematic work presented. Since this Organization took over the tasks of the Intra-Hospital Commission on Organs and Tissue Donation for Transplantation (*Comissão Intra-Hospitalar de Doação de Órgãos e Tecidos para Transplante – CIHDOTT*) the organ donation process has been optimized, particularly the daily active search activity performed by the nurses. Thus, the early identification of patients with potential brain death favored considerably the increase in its notification and, consequently, the significant increase in organ donations, contributing to the increase in the number of transplants performed. The continuous monitoring of the indicators established by the OPO supports the development of strategies aimed at the continuous improvement of the organ donation process and of good practices.

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