

PATIENT SAFETY IN THE PROCESS OF ORGAN AND TISSUE DONATION AND TRANSPLANT

Aline Lima Pestana Magalhães¹, Gabriela Marcellino de Melo Lanzoni¹, Neide da Silva Knihs¹, Elza Lima da Silva², Alacoque Lorenzini Erdmann³

ABSTRACT: This article aims to present innovative aspects for the professional practice of the nurse, regarding the diagnosis of brain death in the process of donation and transplantation of organs and tissues, addressing the interfaces between the care management and patient safety. Emphasis is placed on the standardization of processes, used to promote speed, reduction in losses from cardiac arrest with a concurrent increase in actual donations, and reduction of time between the first clinical examination and harvesting of the organ. It allows the team to recognize abnormalities and make the necessary corrections in time. Thus, it is seen that patient safety should be a basis for management's decision-making and interventions, so as to make the care practice of adequate quality.

DESCRIPTORS: Management; Nursing Care; Patient Safety; Tissue and Organ Procurement; Transplants.

SEGURANÇA DO PACIENTE NO PROCESSO DE DOAÇÃO E TRANSPLANTE DE ÓRGÃOS E TECIDOS

RESUMO: Objetivou-se apresentar aspectos inovadores para a prática profissional do enfermeiro, no que se refere ao diagnóstico de morte encefálica no processo de doação e transplante de órgãos e tecidos, abordando as interfaces entre a gerência do cuidado e a segurança do paciente. Enfatiza-se a padronização de processos, utilizada para promover agilidade, redução das perdas por parada cardíaca com aumento concomitante das doações reais, e diminuição do tempo entre o primeiro exame clínico e o explante. Permite que a equipe reconheça as anormalidades e faça as correções necessárias em tempo hábil. Assim, vislumbra-se que a segurança do paciente deve subsidiar as tomadas de decisão e intervenções de gestão, de modo a qualificar a prática de cuidado.

DESCRIÇÕES: Gerência; Cuidados de enfermagem; Segurança do paciente; Obtenção de órgãos e tecidos; Transplantes.

SEGURIDAD DEL PACIENTE EN EL PROCESO DE DONACIÓN Y TRASPLANTE DE ÓRGANOS Y TEJIDOS

RESUMEN: Estudio cuyo objetivo fue presentar aspectos innovadores para la práctica profesional del enfermero acerca del diagnóstico de muerte encefálica en el proceso de donación y trasplante de órganos y tejidos, considerándose las relaciones entre la administración del cuidado y la seguridad del paciente. Se destaca la estandarización de procesos, utilizada para promover agilidad, reducción de pérdidas por parada cardíaca con aumento concomitante de las donaciones reales, así como disminución del tiempo entre el primer examen clínico y el explante. Eso posibilita que el equipo reconozca las anormalidades e haga las correcciones necesarias en tiempo hábil. De ese modo, se constata que la seguridad del paciente debe subsidiar las decisiones e intervenciones de gestión, a fin de calificar la práctica de cuidado.

DESCRIPTORES: Gerencia; Cuidados de enfermería; Seguridad del paciente; Obtención de órganos y tejidos; Transplantes.

¹RN. Ph.D in Nursing. Lecturer of the Department of Nursing of the Federal University of Santa Catarina. Florianópolis, State of Santa Catarina (SC), Brazil.

²RN. Ph.D in Clinical and Experimental Pathophysiology. Lecturer in Nursing of the Federal University of Maranhão. São Luís, State of Maranhão (MA), Brazil.

³RN. Ph.D in Philosophy of Nursing. Lecturer in Nursing of the Federal University of Santa Catarina. Florianópolis, SC, Brazil.

Corresponding author:

Aline Lima Pestana Magalhães
Universidade Federal de Santa Catarina
Campus Universitário - 88040-900 - Florianópolis, SC, Brasil
E-mail: aline.pestana@ufsc.br

Received: 01/03/2016

Finalized: 14/03/2017

● INTRODUCTION

Patient safety is a basic principle and requirement for quality of care, and must be valued as a right of the patient and as an ethical commitment from the health professionals and institutions. It is defined as reduction of the risk of unnecessary harm associated with healthcare to an acceptable minimum as – taking into account the complexity of the procedures and health treatments – the potential for harm is real⁽¹⁻²⁾.

Brazil currently has one of the largest public organ and tissue transplantation programs in the world. In the international context, Brazil is second in the absolute number of kidney transplants (5,635), with the United States in first place (17,107)⁽³⁻⁴⁾. In the context of the donation and transplantation of organs and tissues, the safety of the potential donor and of the process must be verified at each stage but, due to its relevance, the aim here is to present innovative aspects for the nurse's professional practice regarding the diagnosis of brain death (BD) in the process of donation and transplantation of organs and tissues.

● ARTICULATING CARE MANAGEMENT WITH PATIENT SAFETY IN THE PROCESS OF DONATION AND TRANSPLANTATION

Safety in diagnosis of BD consists of undertaking early detection, through neurological or clinical evaluations and through the undertaking of the complementary graphic exam. The clinical evaluation must be undertaken at two points, respecting the time interval established for each age range of the potential donor: from seven days to two months incomplete, the examination must be repeated every 48 hours; from two months to one year incomplete, it must be repeated every 24 hours; from one year to two years incomplete, every 12 hours; and above the age of two years, every six hours⁽⁵⁻⁶⁾.

The cause of the coma must be known, with hypothermia and the use of drugs which depress the central nervous system being excluded. Furthermore, the clinical examinations must be undertaken by different physicians, who may not be members of the procurement and transplantation team, it being mandatory that one must be a neurologist. The complementary examinations need to demonstrate the absence of electrical activity or of cerebral metabolic activity or of blood perfusion. The clinical data and data from the complementary examinations must be recorded in the Declaration of Brain Death form and be duly signed by the physicians who assessed the patient⁽⁵⁻⁶⁾. The family members must be embraced and be aware of the entire process of diagnosis of BD.

In the process of donation, safety lies in carrying out the evaluation and the care of the potential donor extremely thoroughly. It is stipulated that this patient should be kept under intensive care, as he or she requires specialized professional attention continuously, as well as specific materials and technologies for monitoring and treatment. It may be added that, as well as the professionals from this department, there are also professionals from the Intra-Hospital Commissions for Donation of Organs and Tissues for Transplantation (CIHDOTT, in Portuguese) and from the Transplantation Center, who help in conducting the evaluation and the care of the potential donor.

The clinical and laboratory evaluations are necessary in order for a quality graft to be obtained, as well as to avoid the transmission of infectious or neoplastic conditions to the recipient. These evaluations occur through a detailed physical examination and a thorough clinical analysis (laboratory tests such as complete blood count, electrolytes, blood typing; examination of kidney, pancreatic, liver, lung and cardiological function; serological tests for infectious or contagious diseases and biological cultures)⁽⁷⁻⁸⁾.

In the donation process, the requirements related to the above-mentioned evaluations encompass the important stage of "potential donor validation", which must be complemented by the collection of information by the team assisting the brain-dead patient, as well as with the family members. As a result, the professionals who work in CIHDOTT seek to identify facts, evidence and details which could reveal absolute or relative contraindications, aiming to ensure quality and safety for the process⁽⁷⁻⁸⁾.

The care for the potential donor must be rigorous, so as to optimize tissue perfusion in order to ensure the viability and quality of the organs and tissues. Some care measures which must be

undertaken: maintenance of corps temperature, hemodynamics and electrolyte balance, as well as hormone replacement and the application of the appropriate ventilatory regime⁽⁹⁾. The effective care of the potential donor makes possible the adequate perfusion/oxygenation of the organs, also favoring the calm undertaking of the interview with family members.

After BD has been confirmed and clinical contraindications representing risks to the recipients have been discarded, the patient is considered a potential organ or tissue donor. At this point, the physician responsible must communicate to the family that the patient's clinical picture is irreversible. Next, the transplant coordinators, the majority of whom are nurses, who work in the CIHDOTT or in the Organ and Tissues Procurement Services, interview the family to address the issue of donation⁽¹⁰⁾. After the family's authorization, the process of removal and distribution of the organs is undertaken.

Safety in transplantation is related to well conducted and documented stages of procurement, packing and transport of the organs and/or tissues.

For each one of these stages mentioned, there are actions and procedures which need to be followed, so as to ensure the validity of the process so as not to harm the recipients and family members involved in the process⁽⁸⁾.

The nurse, over the years, has come to be considered the professional with the greatest skill for interacting in this scenario and managing this process. She is capable of interacting with the multi-professional team and with the family and prioritizing and taking decisions in good time, thus ensuring that the care undertaken in this process may be effective, safe and carried out with quality⁽¹¹⁾.

In order to facilitate and promote safety in the diagnosis of BD, in the process of donation and transplantation, the Central of Notification and Distribution of Organs and Tissues of the State of Santa Catarina has organized managerial instruments so that at each level of care (intensive care unit, Emergency Room, CIHDOTT and the Central of Notification and Distribution of Organs and Tissues), the same stages may be followed, so as to standardize and direct the care for the brain-dead patient, identify opportunities for improvements relating to administrative requirements and to improve the direct patient care.

According to data from the Brazilian Transplant Register, up until June 2016, in Brazil, 3,823 solid organs had been transplanted, of which 657 were from live donors, and 3166 from deceased-donors. The highest number of transplants took place in the South and Southeast regions of Brazil. The State of Santa Catarina is foremost in Brazil in organ donation, with the best rate of effective donors: 34.9 per million inhabitants, this being Brazil's best rate of organ donation. This rate is comparable with the best found among developed countries such as Spain, which has about 35 donors per million inhabitants⁽³⁻⁴⁾.

One qualitative study undertaken in Santa Catarina⁽¹¹⁾ showed that the care management in the process of donation and transplantation of organs and tissues is based in a triad, which consolidates the safety of the donor and recipient as a fundamental and transversal element in the process, through continuing education, standardization and monitoring of the process's indicators (such as assessment of the donation and transplantation indicators, in order to assess the performance of the CIHDOTT and of the Central of Notification and Distribution of Organs and Tissues; identification of nonconformities and auditing the process).

Considering the emphasis on the process of donation and transplantation, standardization has been recommended internationally as a tool which makes each member of the team more efficient, causing them to be clear regarding their responsibility in the work⁽¹²⁾.

Specifically regarding this issue, it is highlighted that, in safety in the transplantation, the Santa Catarina Transplant Center, in conjunction with the CIHDOTT and the surgeons, has developed managerial instruments for standardizing the stages of care for the maintenance of the potential donor and for the procurement, packing and transport of the organs and tissues. As a result of these actions, the care process became faster, the losses from cardiac arrest were reduced, and there was a concurrent increase in actual donations and reduction of the time between the first clinical examination and procurement⁽⁷⁾.

Standard Operating Procedures (SOP) document the way that the professional should act at

each stage of the process, allowing everybody to “speak the same language”⁽¹¹⁾. Furthermore, the standardization of the work is a strategy used under Lean thinking which aims to establish a standard sequence in the work, which must be followed each time a specified activity is undertaken, allowing the team to recognize abnormalities and make the necessary corrections in real time⁽¹³⁾.

● FINAL CONSIDERATIONS

Patient safety needs to be present in all the scenarios of care, because the care undertaken in the process of donation and transplantation of organs and tissues is the result of relationships which take place at three different levels: the transplant center, CIHDOTT, and the intensive care unit and emergency department. As a result, there is the possibility of the occurrence of errors and/or adverse events in the care management process, if this is not conducted well.

One strategy emphasized by the National Patient Safety Policy is the standardization of processes linked to Continuing Education, so as to maximize safe and qualified decision-making and strengthen management interventions which transform care practice.

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