

Perioperative nursing contributions to the success of organ and tissue transplantation

Contribuições da enfermagem perioperatória para o sucesso do transplante de órgãos e tecidos

Contribuciones de la enfermería perioperatoria al éxito del trasplante de órganos y tejidos

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Currently, organ and tissue transplantation represents one of the most complex and successful health interventions for patients with conditions for which no other therapeutic options are available. Its implementation requires not only advanced health technologies, but also the integrated and coordinated work of multiple professionals. Within this context, members of the perioperative nursing team hold a strategic role, providing both direct and indirect care to donors, transplant candidates, recipients, and their families, as well as contributing to health education¹.

Perioperative nurses work within a complex ecosystem that offers opportunities to implement health education initiatives directed both at the nursing community and the general population. Such initiatives aim to enhance literacy regarding the objectives of organ and tissue transplantation and its high safety standards.

Furthermore, their role as key members of the healthcare team is noteworthy, as they provide direct care to donors, candidates, recipients, and their families throughout all stages of the transplantation process². Even before organ and tissue procurement teams depart for transplantation, the perioperative nursing team is responsible for anticipating needs and preparing kits containing specific materials, preservation solutions, and appropriate containers for transporting the harvested organs, among other supplies.

During the explant procedure, the perioperative nurse, together with nursing technicians and surgical instrument technicians, operates with a particular focus on ensuring procedural safety. Activities include verifying documentation provided by the Transplant Center, preparing the donor for surgery, implementing measures to prevent healthcare-associated infections, monitoring hemodynamic status and organ perfusion, communicating with the family, and overseeing the dignified reconstruction of the donor's body in accordance with Brazilian legislation. This ethical and respectful approach continues through the handover of the donor's body to the family, honoring the altruistic and fraternal act of donation³.

The perioperative nursing team also works concurrently in the care of patients at different stages of the transplantation process, including both candidates and individuals who have already undergone transplantation. During the perioperative period, the application of the nursing process is emphasized, aiming to ensure individualized and safe care. It is important to note that the transplantation process, whether involving organs or tissues, presents unique characteristics that require the attention of nurses and the nursing team. These include the provision of blood products in procedures with a high risk of bleeding, the administration of immunosuppressive and antimicrobial drugs in specialized regimens, and the implementation of strict standards for the prevention and control of healthcare-associated infections¹.

Thus, during the procedure, the perioperative nursing team collaborates with the surgical team in assessing and preparing the patient, ensuring appropriate conditions for a safe surgical intervention. Throughout the intraoperative period,

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they are responsible for providing direct nursing care to the candidate, positioning the patient on the operating table to optimize exposure of the surgical site, assessing risks, and implementing strategies to prevent pressure injuries associated with surgical positioning. They also manage perioperative hypothermia, given that transplant surgeries often involve longer operative times than those observed in general surgery. Additional responsibilities include surgical instrumentation and intraoperative assistance, in coordination with the surgical and anesthesiology teams, as well as ensuring the availability and proper functioning of materials and equipment².

In the immediate postoperative period, nursing care is guided by meticulous monitoring aimed at the early identification of complications, the implementation of measures to prevent healthcare-associated infections, and the surveillance, interpretation, and correction of hemodynamic parameters. Care is individualized and humanized, with a focus on quality and perioperative safety. This support continues until the patient is discharged from the post-anesthesia recovery unit or transferred to the intensive care unit, at which point continuity of care proceeds in the surgical ward and during outpatient follow-up².

This role demands specialized technical and scientific knowledge, proficiency in care coordination, and sound decision-making in complex situations, thereby reinforcing the strategic contribution of nursing to enabling and ensuring successful transplant outcomes.

In a scenario that requires rapid decision-making, effective risk management, and precise communication, specialized

knowledge and experience are essential to ensure procedural safety and promote optimal recovery of transplant recipients⁴. Moreover, continuous advances in health technologies, evidence-based protocols, and specialized training programs represent opportunities to strengthen the quality and safety of nursing care provided to this patient population⁴.

Within the complex process of organ and tissue donation and transplantation, perioperative nursing is established as an indispensable link. Its role is essential, from implementing educational initiatives for healthcare professionals and the general public, to supporting donor and recipient families, and participating both sensitively and technically in procurement and grafting procedures, thereby promoting continuity of care in subsequent stages. This role is defined by technical expertise, coordination skills, and the provision of qualified care throughout the donation and transplantation process, ensuring the safety of all involved and contributing to the ongoing improvement of post-transplant outcomes.

This is a practice that transcends the technical dimension, as it requires sensitivity, discernment, and the ability to act in critical scenarios that demand multidisciplinary integration. Recognizing this role entails understanding that transplant success is not confined to the surgical act itself, but also reflects the ethical and scientific commitment that the nursing team contributes to each stage of the process.

Valuing and investing in the training of the nursing team therefore represents an investment in the quality and safety of care throughout the perioperative process of organ and tissue donation and transplantation⁵.

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