Adult hepatic transplant patient health...



ADULT HEPATIC TRANSPLANT PATIENT HEALTH CARE IN THE LATE POST-

CUIDADOS DE SAÚDE AO PACIENTE TRANSPLANTADO HEPÁTICO ADULTO NO PÓS-OPERATÓRIO TARDIO

OPERATIVE

CUIDADOS DE SALUD DEL PACIENTE TRASPLANTADO HEPÁTICO ADULTO EN EL POSTOPERATORIO TARDIO

Sâmia Jucá Pinheiro¹, Lívia Braga Costa de Oliveira², Chiara Edwirgens Rodrigues de Lima³, Mércia Marques Jucá⁴, Ítalo Rigoberto Cavalcante Andrade⁵, Maria do Carmo de Oliveira Citó⁶

ABSTRACT

Objective: to describe the health care to the transplanted liver patient in the late postoperative period. **Method:** a quantitative, exploratory study with 18 high-level liver transplantation professionals. Data were collected from a questionnaire, analyzed using SPSS, version 20, and presented in tables. **Results:** the multiprofessional team is specialized. Physicians and nurses provide general and broad guidelines for therapeutic follow-up, unlike other categories. **Conclusion:** the main health care described was immunosuppressive drug therapy; prevention of infections; guidance on returning to outpatient appointments and conducting examinations; surgical wound care; nutritional therapy and the use of masks. Knowledge about care has been expanded by providing guidance during hospital discharge and effective therapeutic follow-up. **Descriptors:** Postoperative Care; Patient Discharge; Liver Transplantation; Orientation; Patient Care Team; Patient Care Planning.

RESUMO

Objetivo: descrever os cuidados de saúde ao paciente transplantado hepático no pós-operatório tardio. *Método:* estudo quantitativo, exploratório, com 18 profissionais de nível superior do transplante hepático. Os dados foram coletados a partir de um questionário, analisados utilizando o SPSS, versão 20, e apresentados em tabelas. *Resultados:* a equipe multiprofissional é especializada. Médicos e enfermeiros fornecem orientações gerais e amplas quanto ao seguimento terapêutico, diferentemente das outras categorias. *Conclusão:* os principais cuidados de saúde descritos foram a terapêutica medicamentosa com imunossupressores; a prevenção de infecções; a orientação quanto ao retorno às consultas ambulatoriais e realização de exames; os cuidados com a ferida operatória; a terapia nutricional e o uso de máscaras. O conhecimento acerca dos cuidados foi ampliado proporcionando um direcionamento durante a alta hospitalar e um seguimento terapêutico eficaz. *Descritores:* Cuidados Pós-Operatórios; Alta do Paciente; Transplante de Fígado; Orientação; Equipe de Assistência ao Paciente; Planejamento de Assistência ao Paciente.

RESUMEN

Objetivo: describir los cuidados de salud al paciente trasplantado hepático en el postoperatorio tardío. Método: estudio cuantitativo, exploratorio, con 18 profesionales de nivel superior del trasplante hepático. Los datos fueron recolectados a partir de un cuestionario, analizados utilizando el SPSS, versión 20 y presentados en tablas. Resultados: el equipo multiprofesional está especializado. Médicos y enfermeros proporcionan orientaciones generales y amplias en cuanto al seguimiento terapéutico, diferentemente de las otras categorías. Conclusión: los principales cuidados de salud descritos fueron la terapéutica medicamentosa con inmunosupresores; la prevención de infecciones; la orientación sobre el retorno a las consultas ambulatorias y realización de exámenes; los cuidados con la herida operativa; la terapia nutricional y el uso de máscaras. El conocimiento acerca de los cuidados fue ampliado, proporcionando un direccionamiento durante el alta hospitalaria y un seguimiento terapéutico eficaz. Descriptores: Cuidados Posoperatorios; Alta del Paciente; Trasplante de Hígado; Orientación; Grupo de Atención al Paciente; Planificación de Atención al Paciente.

¹Master, State University of Ceará / UEC. Fortaleza, Brazil. E-mail: samia.enfa@hotmail.com ORCID iD: https://orcid.org/0000-0003-2930-2283; ²Nurse, University of Fortaleza, Brazil. E-mail: liviabraga.costa@gmail.com ORCID iD: https://orcid.org/0000-0001-6900-0001-6900-0001-6900-0001-6900-0002-7591-593X; ⁴Master, Federal University of Ceará / UFC. Fortaleza, Brazil. E-mail: merciamjuca@gmail.com ORCID iD: https://orcid.org/0000-0001-6453-9927; ⁵Master, University of Fortaleza, Brazil. E-mail: merciamjuca@gmail.com ORCID iD: https://orcid.org/0000-0002-9690-4666; ⁶PhD, Centro Universitário Estácio do Ceará. Fortaleza, Brazil. E-mail: cacacit@yahoo.com.br ORCID iD: https://orcid.org/0000-0002-2738-2657

INTRODUCTION

The liver is extremely important for the proper functioning of the body and produces various substances in order to keep the individual healthy. When injured, it causes disorganization in the organism.¹

When all the alternatives of clinical and surgical treatment for the individuals affected by some liver pathology are exhausted, transplantation is suggested. Under these conditions, the patient's health is severely impaired and the prognosis of hepatic impairment should be assessed in relation to postoperative complications. Liver transplantation seeks to promote a better quality of life.²

Liver transplantation is the treatment of choice for patients with cirrhosis and decompensation of the disease for those with fulminant hepatic insufficiency and with hepatocellular carcinoma within the criteria of Milan.³

The follow-up of the patient by the multiprofessional team is extremely important because of the numerous complications that can occur after transplantation, contributing to a decrease in patient survival. The main ones are the opportunistic infections caused by the administration of immunosuppressants. These should present low levels of toxicity and adverse events and optimize organ function at the recipient, thus prolonging the transplant's survival.⁴ Thus, the patient is followed up by routine exams such as laboratory and imaging tests.

The interest in the study was due to the experience acquired during the care period in the liver transplantation sector, where it was observed that many patients were readmitted complications to the noncompliance with the treatment. The study was relevant because it attempted to improve the therapeutic follow-up of the patients treated in the liver transplantation unit, describing the essential care to transplanted ones, proposing an improvement of the care to them and making them protagonists of the care.

It is believed that with the guidelines received during hospital discharge and outpatient follow-up, from the identification of the essential care to the patients, they will increase the knowledge regarding the appropriate therapies, extremely useful in the preservation of the graft. In addition, it is believed that the study will promote the enrichment of the literature on the subject.

Adult hepatic transplant patient health...

OBJECTIVE

• To describe the health care to the transplanted liver patient in the late postoperative period.

METHOD

Quantitative and exploratory study. The study population consisted of 32 high-level transplantation professionals. sample counted on 18 of these professionals. Inclusion criteria were: medical professionals and nurses who were specialists transplantation and / or who had at least three years of professional experience in the area and other professional categories, such as nutritionists, pharmacists, psychologists and physiotherapists working in the service. Exclusion criteria were: non-specialist doctors and nurses who did not present at least three years of professional experience in the area and professionals who were not present at the time of collection.

The data was collected from questionnaire encompassing questions regarding titration and length of service and a question about the health care of patients transplanted during hospital discharge and in postoperative late period. questionnaires were delivered to professionals at the time of data collection. Some were answered in writing and given to the researcher at the time of collection and delivered others answered and questionnaire at another time.

The data was analyzed by the Statistical Package for the Social Sciences (SPSS), version 20, where the health care frequencies of transplanted patients during hospital discharge and the late postoperative period guidelines identified during the described at the time of the interview. The data were presented in the form of tables, and discussed according to the relevant literature.

All bioethical aspects were respected, in accordance with Resolution 466/12 of the Ministry of Health, through the ethical authorization with the opinion of 1,821,508 and number of CAAE 60893416.1.0000.5040, issued by the Human Research Ethics Committee of the General Hospital of Fortress.

RESULTS

The collection of data was extremely important for the identification and description of the essential care for liver transplant patients at the time of hospital

discharge and at home, since useful information was obtained that were adequate to the reality of the institution and the patients assisted.

Adult hepatic transplant patient health...

Table 1 shows a larger number of nurses interviewed, counting nine (50%) participants of the study. The medical team had four (22%) professionals, and the rest of the team counted on five (28%).

Table 1. Distribution of the number of professionals interviewed, according to the respective professional categories and length of service. Fortaleza (CE), Brazil, 2017.

Professional category	Service time 0-5 years	Service time 5-10 years	n(%)
Doctor	1	3	4(22.2)
Nurse	4	5	9(50.0)
Pharmaceutical	1	-	1(5.5)
Nutritionist	1	-	1(5.5)
Physiotherapist	-	1	1(5.5)
Psychologist	1	-	1(5.5)
Total	8	10	18(100.0)

According to table 2, it is observed that the majority of the team is specialized. Eleven (61.0%) interviewed are specialists, nine (50.0%) specialists in other areas and two (11.0%) specialists in Organ Transplantation, and four (22.2%) are masters. It is noteworthy that all the physicians working in the service are gastroenterologists and only the nurses presented the title of specialist in Organ

Transplantation among all professional categories. None of the professionals interviewed presented the title of doctor, although some were doctoral students. Some professionals, at the time of collection, were also completing specialization in organ transplants and in other areas, in addition to the master's degree.

Table 2. Distribution of the number of professionals interviewed, according to their respective qualifications. Fortaleza (CE), Brazil, 2017.

Titration	n(%)
University graduate	4(22.2)
Specialist	9(50.0)
Specialist in Organ Transplantation	1(5.5)
Master	1(5.5)
Total	18(100.0)

It is observed that the number of professionals specialized in transplantation is still very small, since it is a sector that needs specific and qualified care. However, this number can be understood by the reduced number of post-graduate programs in organ transplants in Ceará, State of the hospital under study.

It was identified that, during the data analysis, the medical and nursing staff provided general guidance to the patients regarding the therapeutic follow-up, not differing much the answers from one professional to another, where many similar

answers and other complementary answers were found. Meanwhile, the other professional categories provide guidelines according to their specific area of action, such as nutrition providing guidance on nutritional therapy; the pharmacist providing information relevant to drug therapy and its interactions; the psychologist offering emotional support and the social worker performing social work.

Table 3 shows all the subjects addressed during the orientation of patient care at the time of discharge or in the late postoperative period, and the number of professionals who cited each of them in their guidelines.

Adult hepatic transplant patient health...

Table 3. Distribution of the subjects described related to the number of professionals who cited each of them in their guidelines. Fortaleza (CE), Brazil, 2017.

Issues addressed at the time of the guidelines	n (%)
Prevention of infections	15(83.3)
Immunosuppressive drug therapy	14(77.7)
Return to outpatient appointments and Examination	13(72.2)
Surgical wound care	13(72.2)
Nutrition therapy	11(61.1)
Personal and household hygiene	11(61.1)
Using masks	10(55.5)
Prevention of skin cancer	8(44.4)
Emotional support	5(27.7)
Sexual Relationship	4(22.2)
Collection of serology for cytomegalovirus	3(16.6)
Limitation of living with domestic animals	2(11.1)
Use of repellents	1(5.5)
Gynecological and urological prevention	1(5.5)

As evidenced, the prevention of infection was evidenced by almost all professionals in their guidelines totaling 15 (83.3%) interviewed. This attention, in relation to infections, is perceived in all the care guidelines described where most of them present, as a purpose, the non-occurrence and / or reduction of the infection rate.

All professionals, with the exception of the nutritionist, physiotherapist, psychologist and social worker, totaling 14 (77.7%) subjects, described the guidelines of care provided to patients regarding drug therapy, mainly related to immunosuppressants. All stressed as the first orientation to be given, due to the disastrous consequences related, failure to administer medications at the correct time and dose and intake of medicines on their own, without medical prescription.

Associated with the orientation regarding drug therapy, the professionals oriented about nutritional therapy, since some of these drugs interact with food. Although the nutritionist plays the fundamental role of nutritional therapy, other professionals also emphasize healthy eating practices. The pharmacist highlighted the interaction of immunosuppressants with foods, guiding noningestion along with them, and some other medical professionals and nurses, totaling 11 (61.1%), highlighted the same recommendation.

Regarding outpatient follow-up, 13 professionals (72.2%)highlighted this recommendation. Guidance has described on the importance of attending rigorous appointments and examinations, where future complications are prevented, and possible complications present at the time of consultation.

Regarding surgical wound care, 13 (72.2%) interviewed emphasized the importance of wound healing, as well as early detection of

signs of surgical wound infection, describing the importance of returning to hospital for examination by the team.

Among all the interviewees, 11 (61.1%) highlighted the importance of personal hygiene and the environment in which transplant patients are inserted, describing that hygiene prevents the occurrence of post-transplant complications. Oral hygiene was also included in personal hygiene.

The importance of the use of mask was evidenced by ten professionals interviewed corresponding to 55.5%. Such importance is also due to the fact that the patient presents a reduction of the immunity due to the immunosuppressive therapy used, being thus more vulnerable to the infections. Usually, use is recommended for three months. After this period, the dosage of immunosuppression already begins to become more balanced in the body.

Among the interviewees, eight (44.4%) highlighted the importance of using sunscreen and adornments such as caps, visors and / or hats for protection against skin cancer.

Regarding emotional support, a continuous follow-up by Psychology was observed not only in the postoperative period, but also in the pre-transplantation. In addition to the (22.2%)psychologist, another four professionals emphasize the importance of emotional support for transplanted patients, the procedure entails physical, psychological and social changes.

Regarding sexual activity, four (22.2%) professionals cited her in their guidelines, where two cited the time to return to sexual practice, while the other two reinforced the importance of the fixed partner and the use of condoms.

Three (16.6%) professionals emphasized the importance of blood collection for

cytomegalovirus serology every two weeks during the three-month period in the transplant, and ten (55.5%) described in the guidelines the immunosuppressant on the day of the laboratory tests (dosage of the immunosuppressant), and the patient was instructed to take the medication only after the collection.

Only two (11.1%) interviewees described in the guidelines the importance of limiting and / or excluding living with domestic animals for at least the first three months after transplantation.

Only one (5.5%) professional emphasized the importance of stimulating the use of repellent by transplants in order to prevent the occurrence of diseases transmitted by mosquitoes and malefics immunosuppressed patients. Regarding gynecological and urologic prevention by transplant patients, one (5.5%) professional highlighted the importance of referral of patients to gynecological routine consultations for women and urologic for men, in order to prevent and / or early detection of gynecological cancer and prostate cancer.

DISCUSSION

It is important to emphasize that the nurses' performance is scientifically grounded and provides effective strategies to promote changes in behavior, attitudes and lifestyles of the patients.⁵ To this end, this professional is the element of the health team that remains the most of the patient, which makes it essential in the awareness of adherence to liver transplant treatment, in addition to favoring the link between the professionals of the multiprofessional team.

The multiprofessional team may vary from one service to another. However, there must be a medical team that can follow the patient from the discovery of the diagnosis to the assistance after the transplant, in addition to active Nursing team. The essential presence of the pharmacist, nutritionist, social worker and dentist should be counted on, as well as professionals who are familiar with the whole process of work and care to an effective assistance necessary contributing to the success of the transplant.⁶

In relation to the postoperative, one of the main complications is the occurrence of infections due to numerous factors such as: prolonged surgery time in a liver transplant; need for polytransfusions, in addition to the immunosuppressive therapy performed. Being the leading cause of transplant mortality, staff should be aware of the major signs of

Adult hepatic transplant patient health...

infection present so that rapid and effective care is implemented. Immunosuppression should be controlled as it predisposes individuals to bacterial and fungal infections the patient monitored must be continuously order detect early in to recurrence of B and C viruses, which cause late graft loss.7

predictive The essential factor for transplantation successful is correct adherence to drug therapy. Thus. pharmacists, along with the multiprofessional advise patients on the medical treatment prescribed by the doctor preventing an adequate pharmacotherapy. Professionals can and should use tools that allow a more effective orientation of care such as the creation of a map with all the medications, schedules their respective described.8

The patient who is able to understand the transplant can also change their experience. He needs to learn how to deal with new medications, take them for the rest of his life, and adhere to lifestyle changes practices, including hygiene infection prevention, monitoring of new organ function, body image, changes in adaptation fluctuations in mood and energy level, issues of professional status, among others.9

In addition, it is well known transplanted patients have a greater chance of developing diabetes and cardiovascular events, especially obese patients and those metabolic syndrome due to immunosuppressive drugs used. 10 Therefore, the patient should have a nutritional followup. controlled the intake of foods rich in encouraging the addition potassium, minerals to diets such as cereals and legumes, as well as encouraging the consumption of carbohydrates from vegetables, legumes, whole grains, fruits and milk, avoiding the consumption of fatty foods and high in salt.

Nutritional support is extremely necessary for transplant patients because of the metabolic disorders they may present. Nutrition must be fully engaged from the preoperative period, since malnutrition can lead to a reduction in the survival rate. 10

In relation to the prevention of skin cancer, the use of sunscreen is indispensable, since immunosuppression is a risk factor.11 This is due to the immunosuppressive therapy performed by the patient suppressing the immune system. Thus, the prevention of skin cancer in these patients should be intensified. It is also recommended the use of continuous sunscreen in these patients.¹²

Although a number of changes of physical, psychological and social origin, a study carried out in a transplant unit in the year 2013, shows, after personal reports, that the procedure improved the patients' quality of life in all these aspects, be they: physical, emotional and social, despite the change in daily life rhythm. However, psychological counseling should be continuous for these patients, in order to improve, even more, the quality of life.¹³

Regarding the transplanted sexual activity, some transplantation centers release the patient to sexual activity six to eight weeks after transplantation and recommend that transplanted patients have a fixed partner, use condoms and maintain good hygiene before and after sexual intercourse. They also point out that transplant patients are at a contracting higher risk of Sexually **Transmitted** Infections (STIs) due to immunosuppression. Thus, they should use safe sex practices.6

As for human cytomegalovirus, it is important to investigate the virus, through laboratory tests, due to the high morbidity, causing a negative impact on the survival of the patient, being one of the important pathogens that affect the transplanted ones. Manifestations may arise either directly or indirectly. As an example, the increased risk of rejection.¹⁴

Post-transplantation immunosuppression may favor the development of infectious complications of bacterial, viral and / or fungal origin in the oral mucosa. These include poor oral hygiene, high prevalence of periodontal disease, and caries. Thus, it is important that the individual recognize the abnormal changes so that rapid and effective dental care can be implemented in order to prevent more serious complications in this group of patients.

In relation to the interaction of transplanted animals with domestic animals, it is recommended that domestic animals be vaccinated and dewormed, and present the food container and their own sleeping places, thus avoiding the transmission of diseases to the transplant.

Regarding accomplishment the οf gynecological and urologic prevention by the transplanted, it was pointed out that gynecological and urological prevention programs differ in each country. Therefore, transplanted patients, differing from the general public, should follow the medical advice regarding the conduct of the preventive exams. The team should encourage transplant recipients to Adult hepatic transplant patient health...

carry out the exams on time, as recommended by prevention programs in the country of origin.⁸

CONCLUSION

The main health care for the late postoperative liver transplant patients. described from experience the of multiprofessional team in a referral hospital, were: prevention of infections; guidance on drug therapy; guidance on returning to outpatient appointments and conducting examinations; and surgical wound care.

The other health care mentioned by the multiprofessional team, but with a lower frequency, were: nutritional therapy; personal hygiene and domicile; emotional support; sexual intercourse; use of masks; prevention of skin cancer; collection of serology for cytomegalovirus; limitation of living with domestic animals; use of repellents; and gynecological and urological prevention.

From the foregoing, it was understood the complexity of the health care to be offered to the patients transplanted by the professionals who assist them. The study also made it possible to increase the knowledge about the essential care in the postoperative period of a liver transplant, providing a better targeting during hospital discharge and an effective therapeutic follow-up, thus avoiding cases of rejection and even loss of the graft.

REFERENCES

1. Nacif LS, Andraus W, Martino RB, Santos VR, Pinheiro RS, Haddad LBP, et al. Adoption of meld score increases the number of liver transplant. ABCD Arq Bras Cir Dig. 2014 July/Sept;27(3):201-3. Doi:

http://dx.doi.org/10.1590/S0102-67202014000300010

- Graziadei I, Zoller Η, **Fickert** Finkenstedt Schneeberger S, Peck-Radosavljevic M, et al. Indications for liver transplantation in adults. Wien Wochenschr. 2016;128(19):679-90. Doi: http://dx.doi.org/10.1007/s00508-016-1046-1.
- 3. Meirelles Junior RF, Salvalaggio P, Rezende MB, Evangelista AS, Guardia BD, Matielo CEL, et al. Liver transplantation: history, outcomes and perspectives. Einstein (São Paulo). 2015 Jan/Mar;13(1):149-52. Doi:

http://dx.doi.org/10.1590/S1679-45082015RW3164.

4. Green M. Introduction: infections in solid organ transplantation. Am J Transplant. 2013 Mar; 13(4):3-8. Doi: http://dx.doi.org/10.1111/ajt.12093

- 5. Mendes KDS, Silva Junior OC, Ziviani LC, Rossin FM, Zago MMF, Galvão CM. Educational intervention for liver transplantation candidates. Rev Latino-Am Enfermagem. 2013 Jan/Feb;21(1):419-25. Doi: http://www.scielo.br/pdf/rlae/v21n1/pt_v21 n1a18.pdf
- 6. Internacional Transplant Nurses Society. A guide to your health care after liver transplantation. Chicago: ITNS; 2016.
- 7. Idossa DW, Simonetto DA. Infectious complications and malignancies arising after liver transplantation. Anesthesiol Clin. 2017 Sep;35(3):381-93. Doi: https://doi.org/10.1016/j.anclin.2017.04.002
- 8. Lima LF, Martins BC, Oliveira FR, Cavalcante RM, Magalhães VP, Firmino, PY, et al. Pharmaceutical orientation at hospital discharge of transplant patients: strategy for patient safety. Einstein (São Paulo). 2016;14(3):359-65. Doi: http://dx.doi.org/10.1590/S1679-
- 9. Duma E. Liver transplantation. Nurs Stand. 2012 June;26(41):59-60. Doi: https://doi.org/10.7748/ns2012.06.26.41
 .59.c9156.

45082016AO3481

- 10. Associação Européia para o Estudo do Fígado. Recomendações de Orientação Clínica da EASL: Transplantação do fígado. J Hepatol [Internet]. 2016 [cited 2017 Aug 10];64:433-85. Available from: http://www.easl.eu/medias/cpg/liver-transplantation/Portuguese-report.pdf
- 12. Associação Brasileira de Transplante de Órgãos. Grupo de Apoio aos transplantados. Manual de Orientação ao Paciente em Transplante. São Paulo: ABTO; 2015.
- 13. Almeida AMN, Ataíde EC, Udo EY, Boin IFSF, Mei MFT, Portugal TCM. Aspectos emocionais e psicossociais de pacientes submetidos a transplante hepático. Sínteses: Rev Eletr SIMTEC. 2014;5:204. Doi: http://dx.doi.org/10.20396/sinteses.v0i5.712
 8.
- 14. Erdbruegger U, Scheffner I, Mengel M, Schwarz A, Verhagen W, Haller H, et al. Impact of CMV infection on acute rejection and long-term renal allograft function: a systematic analysis in patients with protocol biopsies and indicated biopsies. Nephrol Dial

Adult hepatic transplant patient health...

Transplant. 2012 Jan;27(1):435-43. Doi: http://dx.doi.org/10.1093/ndt/gfr306 15. Profio BD, Inoue G, Marui VC, Trombini AL, Matroni RJ, Ortega KL, et al. Condição bucal hepatopatas prétransplantados transplantados hepáticos: revisão da literatura. Braz J Periodontol [Internet]. 2016 [cited 2017 Feb 13];26(1):28-3. Available from:

http://www.revistasobrape.com.br/arquivos/ 2016/marco/REVPERIO_MAR_2016_PUBL_SITE_ PAG-28_A_38.pdf

Submission: 2018/11/18 Accepted: 2018/03/27 Publishing: 2018/05/01

Corresponding Address

Sâmia Jucá Pinheiro Rua Rafael Tobias, 1999, Casa 23

Bairro Sapiranga

CEP: 60833-196 - Fortaleza (CE), Brazil