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RESEARCH

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# Elements of nursing care for onco-hematology patients: a case study

Elementos do cuidado de enfermagem aos pacientes onco-hematológicos: um estudo de caso

Atención de los elementos para pacientes onco-hematológicos: un estudio de caso

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#### **ABSTRACT**

**Objective:**To identify the elements of nursing care to onco-hematological patients hospitalized in the hematology of a university hospital located in the State of Rio de Janeiro. **Method:** This is a case study whose data collection was between February and June 2013 through a semi-structured interview with 10 members of the unit's nursing team and submitted content analysis, approved by the CEP under opinion144.119. **Results:**As an element of care for onco-hematologic patients, those related to prevention of bleeding and infection, comfort, emotional support and orientation were pointed out. **Conclusion:** It was observed that such elements are essential for the maintenance of a safe and efficient treatment of these patients not only

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in the hospital environment, but also in the home context. And they need to be understood and incorporated by all involved to guarantee quality of life for onco-hematologic patients.

**Descriptors:** Oncologynursing, Nursing care, Hematology, Neoplasms, Hospitalization.

#### **RESUMO**

Objetivo: Identificar os elementos do cuidado de enfermagem a pacientes onco-hematológicos internados na hematologia de um hospital universitário localizado no Estado do Rio de Janeiro. Método: Tratase de um estudo de caso, cuja coleta de dados ocorreu entre fevereiro a junho de 2013 por meio de entrevista semiestruturada com 10 membros da equipe de enfermagem da unidade e submetida análise de conteúdo, aprovado pelo CEP sob parecer n.144.119. Resultados: Apontaram como elemento do cuidado aos pacientes onco-hematológicos os relacionados àprevenção de sangramento e infecção, conforto, apoio emocional e orientação. Conclusão: Observou-se que tais elementos são essenciais para a manutenção de um tratamento seguro e eficiente destes pacientes, não só no ambiente hospitalar, mas também no contexto domiciliar, os quaisprecisam ser compreendidos e incorporados por todos os envolvidos para garantir qualidade de vida aos pacientes onco-hematológicos.

**Descritores**: Enfermagem oncológica, Cuidados de enfermagem, Hematologia, Neoplasias, Hospitalização.

#### **RESUMEN**

Objetivo: Identificar los elementos del cuidado de la enfermería a pacientes onco-hematológicos internados en la hematología de un hospital universitario localizado en el Estado de Río de Janeiro. Método: Trata-se de un estudio de caso, cuya coleta de datos ocurrió entre febrero y junio de 2013 por medio de entrevista semi-estructurada con 10 miembros de la enfermería de la unidad y sometidos análisis de contenido, aprobado por el CEP en opinión144.119. Resultados: Apontar como elemento de cuidado de los pacientes onco-hematológicos relacionados con la prevención de sangramento e infección, el confort, el apoyo emocional y orientativo. Conclusión: Observamos que los elementos son esenciales para un mantenimiento de un tratamiento seguro y eficiente.

**Descriptores:** Enfermería oncológica, Atención de enfermería, Hematologia, Neoplasias, Hospitalización.

#### INTRODUCTION

This study addresses the elements of nursing care for hospitalized patients bearing onco-hematological diseases, in which the various aspects involved as physical, psychological, emotional and behavioral changes must be considered. The hematological disease is, in most cases, chronic and causes varied disabilities characterized by a slow and progressive decline in physiology, making these patients more vulnerable to complications from treatment and the hospitalization process itself.

In this context, it should be noted that, according to data from the National Cancer Institute, the national estimate for the year 2016 are 5,210 new cases of Non-Hodgkin's Lymphoma (NHL) in men and 5,030 in women. Already Hodgkin's Lymphoma (HL) was estimated 1,460 cases in men and 1,010 in women. With regards to Leukemia, Brazil was estimated in Brazil in 2016, 5,540 new cases in men and 4,530 in women.

Among the onco-hematological diseases, leukemia and lymphomas gain relevance because it is a disease that is usually discovered during a routine medical examination or the person seeks to treat a seemingly simple symptom that has sudden onset, the symptomatology of which is common to several others which is complex to be diagnosed and often requires immediate hospitalization for diagnostic confirmation and early intervention by a specialized team, in which nursing is important because of the nature of its practice, which implies a greater proximity to the patient for their basic needs through a specific care planning that aims at an integral and effective care, in a safe environment.<sup>2</sup>

And when hospitalized either through the health-disease process or the treatment received during hospitalization, these patients present a need for care that is specific and that makes all the difference when known and applied by a specialized nursing. Therefore, the study goal is to identify the elements of nursing care towards the hospitalized onco-hematological patients.

#### **METHODS**

This is a case study, which was carried out in the hematology ward from a University Hospital located in the *Rio de Janeiro* State. The study was performed through semistructured interviews with members of the nursing team that worked in aforementioned ward for at least two months, belonging to both genders and with more than 18 years old. The nursing team members who were on vacation and/or removed during the data collection period were excluded. The research project was approved by the institution's Research Ethics Committee under the Legal Opinion No. 144.119, and all participants were informed about the research objectives and signed the Free and Informed Consent Term.

Data were collected from February to June 2013 and a total of 10 professionals participated in the study, including 4 nurses, 4 nursing technicians, and 2 nursing assistants, from the total of 20 members of the nursing team from the hematology ward.

The interviews followed a structured script with a part with identification data such as name, age, sex, marital status, schooling, function, time and work organization, hospital work experience and unit and qualification and other with open questions about the theme of the study. They were scheduled according to the availability of the participants, recorded in a digital device, transcribed by the researcher and later identified by the initial letter of the profession, being (N) to Nurse (NT) to Nursing Technicians and (NA) to Nursing Assistant, followed by the Arabic number for the interview order: N1, N2, NT3, NT4, NT5, N6, NT7, NA8, N9 and N10.

Subsequently, the data were scrutinized by the content analysis following the steps of pre-analysis, material exploration, treatment of results, inference and interpretation.<sup>3</sup>

Based on data analysis, the following category emerged: Nursing Care Elements to the Onco-hematological Patient; and its subtopics: prevention, comfort, emotional support, and guidance.

#### RESULTS AND DISCUSSSION

Participated in the study were 10 members of the nursing team from the hematology unit, out of which eight are women and two men. According to the 2010 Census, 51% of the population is comprised of women and 49% of males.

Regarding the age group, this ranged from 23 to 56 years old and the median is 46 years old, being six married, two unmarried and two divorced. The 2010 Census data confirm the trend of divorce and the impact of legal measures, showing that the proportion of divorced people has almost doubled from 1.7% in 2000 to 3.1% in 2010.4

Concerning the schooling, three have completed High School and seven have graduated in Nursing, which indicates that it is a team with specific training in the area.

The level of education increased in the population aged 10 years or more by level of education from 2000 to 2010, the percentage of people with at least one completed university course increased from 4.4% to 7.9%.

With regards to working hours, seven are part of the  $12 \times 60$  shift day service, one is part of the night service on  $12 \times 36$  shifts and two are daytime workers from 7 a.m. to 1 p.m. As for the work regime, nine have a steady position and one is hired. As for the duration of the sector, it ranged from seven months to 15 years of service, showing that the industry team has significant experience in the sector.

In relation to professional qualification, six have a postgraduate course, among them one has a master's degree in nursing and an MBA; another with a postgraduate degree in health promotion with emphasis on family health; one with a postgraduate degree in pediatrics and a professional master; one with a postgraduate degree in blood center management; a member with a postgraduate degree in hospital management and in hemotherapy, hematology and support therapy; and another nurse with a postgraduate degree in dermatology and hematology, hemotherapy and support therapy.

### The elements of nursing care for hospitalized onco-hematological patients

Care for patients with hematological disorders is challenging for nurses, since blood disorders, such as pancytopenia, are significant and require meticulous care in treatment to avoid deterioration and complications inherent to it.<sup>5</sup>

The care of these patients involves not only knowledge, but also the willingness and interest of nurses to listen to them, in order to identify their expectations, their fears and feelings about the experience of hospitalization and illness. And, in this way, contribute to their adaptation and safety through assistance that considers their needs, minimizing the risks through quality care to patients.

Therefore, it is essential that the nurses working in the hematology clinic recognize the signs and symptoms, risks and complications that the hospitalization process can cause in patients with hematological disease, thus facilitating the identification of elements of care, such as prevention, comfort, emotional support and guidance that are specific to this clientele.

In the subtopic prevention the character of the care is attributed to the prevention of infection and bleeding. With regards to infection, it was mentioned: hand hygiene; control of oral mucosa; intestinal elimination; control of peripheral and deep venous access, as well as removing the professional from the patient and the use of personal protective equipment (capote, glove, mask) and permanent (thermometer, pressure and stethoscope) individual use.

[...] Basic care is the control and prevention of infection [...] control inherent in infection of the mouth, control including intestinal elimination [...] control of venous access to prevent and control eventual phlebitis. Deep punch control (N1).

[...] you are observing if he has no phlogistic signs in a puncture [...] If we have some flu or not enter the infirmary or enter mask. Asepsis, take care of the hands. Wash your hands. Much more hygiene than another patient, because they are immunosuppressed. They have a very low resistance [...] (NT3).

Handwashing was reinforced by the team reflecting this care as essential. The hands are the most common vehicle for transmitting organisms and "hand hygiene" is the most effective means of preventing horizontal transmission of infections between hospital patients and health personnel.<sup>6</sup> And for body hygiene give preference to neutral liquid soap, for the exclusive use of the patient.

Aseptic techniques were another relevant factor in the prevention of infection and in minimizing the contamination risk.

With the aseptic techniques that we learn. All we do here are aseptic techniques, to avoid contamination, to avoid infection [...] To lean on the bed, I have to put on the cape. I cannot touch my lab coat that I leaned against the other bed [...] (NA8).

The use of the non-sterile coat should be used for procedures that are likely to generate blood spills, bodily fluids, secretions, or excretions. And the sterile coat, just for sterile procedures. And the removal of these capes should be done carefully to avoid contamination across the professional's clothing.<sup>7</sup>

In our case of hematology, we already have a cape; we have an individual thermometer, an individual pressure device because of the problem of low immunity (NT4).

[...] at least we try to avoid having infections because for them practically, for some this is lethal... Everything that is invasive we observe with more care [...] Everything that is around him we also take care that it is not exchanged for another patient. Each has its own personal belongings. [...] If it's a deep puncture... if you have that transparent [...] film, there's an exchange every 72 hours. But usually we put the transparent one so we can see if there is any sign of hyperemia if there is any sign of infection in the catheter. Normally it is done with asepsis technique, it is with alcohol at 70% and sterile gauze, sterile glove, normal procedure (NT5).

[...] The use of a glove, a mask, an apron for his prevention, in order not to [...] (pause) cross contamination. To observe punctures, dressings. All patients here have individual bedside material. If the employee has the flu, he is removed from the ward because of low immunity (NA2).

Kuplich mentions the importance of using individual materials, i.e., for the exclusive use of the infected patient, keeping them inside the room and, also, disinfect such materials with 70% alcohol after each use.<sup>8</sup>

We end up wearing a mask too, when we're going to manipulate him [...] to do the transport, we put on a mask, when we are going to do x-ray or something like that, we usually mask it, each patient has his sphincter, his thermometer and we do the disinfection [...] disinfection of the appliances, it is the bed of the bed, after the bath, every day, to do the hygiene with alcohol to 70% [...] administration of the medication is always passing alcohol in the side injector, capping, always leaving the polyfix well capped [...] We do this disinfection with alcohol at 70% in the lateral injector [...] (NT7).

"Primary bloodstream infections (PBSI) are among the most commonly associated with health care. It is estimated that about 60% of nosocomial bacteremias are associated with some intravascular device." The use of central vascular catheters, especially those of short duration, are considered the risk factors for PBSI.9

Corroborating with this assertion, bloodstream infections are proportionally related to 19% intravascular devices, 17% genitourinary tract, 12% respiratory tract, 5% intestinal tract, peritoneum and skin, 4% are attached to the biliary tract and 3% to intra-abdominal abscess. 10

There are certain conditions that predispose the patient to bacteremia or fungemia, which includes age, underlying diseases, medications (corticosteroids, chemotherapy, cytotoxic drugs) and some invasive medical procedures (catheters and endoscopic procedures). This risk is higher in the extreme age groups and in patients with hematological diseases, cancer, immunodepression and others.<sup>10</sup>

Primary bacteremia is so called because it originates in the circulatory system itself or by the direct entry of microorganisms into the bloodstream through needles, contaminated infusions, catheters, or other vascular devices. <sup>10</sup>

The origin of PBSI occurs by extraluminal colonization in the first two weeks, as the bacteria form a "biofilm" on the outer face of the device. After this period, colonization by the intraluminal route prevails mainly in long-stay catheters. Other less common but contributing pathways to the pathophysiology of infection are the colonization of the tip

of the device by hematogenous spread from another source, the hands of professionals, and the infusion of contaminated solutions.<sup>9</sup>

The therapeutic basis of hematologic cancer is intravenous chemotherapy<sup>11</sup> and vascular devices are fundamental in the administration of the same. Given this, it is observed that the nursing team must be careful when handling such devices, so that it is as free as possible of a pathogenic microorganism.

Regarding the element of prevention of bleeding, the care is: to evaluate the laboratory examination in order to identify the risk since significant changes can occur daily or even during the day. Follow up and assist the patient in body hygiene or use the hygienic chair to perform the spray bath.

[...] The patient has a quantity of plaque and you cannot, for example, move it in the bed. So it is important for nursing to be aware of this. Look for the exams, see if he can move [...] there are also complex patients, they are patients that the agent has to see the exam every day, have to see his clinical condition daily, not once a day, but sometimes during the day and at night as well, because today he is in a certain situation, tomorrow he is in another [...] (N10).

[...] So, normally, it is not a person, it is not possible to make sudden movements because of a thrombocytopenia, due to the leukemia itself. There is no more effort [...] when the plate is lowered to us with all the care with this type of patient [...] (NT5).

When there is a risk of significant bleeding, in other words, when platelets are equal to or less than 20,000 mm³,6 it can cause a worsening of the patient's clinical condition, even in developmental activity that is considered a priori simple, such as, body hygiene. The occurrence of trauma in the presence of thrombocytopenia can trigger complications if it involves vital organs such as the brain and, for instance, head trauma and consequently alteration of the level of consciousness and impairment of physical, behavioral and cognitive abilities<sup>7</sup> and, thus, aggravate the clinical picture.

In an attempt to minimize this risk and avoid other less severe forms of bleeding, however significant, patient hygiene should be aided and in some cases performed on the bed itself. It is also important to use soft bristle brushes for brushing teeth, alcohol-free rinses and avoiding the use of dental floss during thrombocytopenia and avoid using sponges on sensitive parts of the body in order not to cause cutaneous bleeding.<sup>8</sup>

The presence of pain is common in the onco-hematological patient, either by extramedullary infiltration of leukemic cells or by treatment received during hospitalization, chemotherapy, procedures and diagnostic tests, such as bone marrow puncture.

[...] He is in pain. I'm going to reduce this pain. He has pressure, he does not move (referring to the patient who avoids changing his position due to pain). So I'm going to have to change it so he cannot do it. He's all swollen. All this happens... we administer the medication, we

administer the chemotherapy, we have to always see if it has a good access to it [...] We do analgesic [...] does a dipyrone. Dipyrone works great. As the dipyrone does not work there is already increasing, did you understand? Already passes the tramal, is passed to another drug that is stronger [...] (N6).

Pain is the most feared symptomatology in the person with cancer, leading to suffering and decreased life quality. It is a symptom that affects 60 to 80% of cancer patients. Suffering caused by pain can influence the patient's life quality. <sup>12</sup>

So, pain relief was identified by the nursing team as a comfort care during the hospitalization of these patients. The pain should be properly analyzed to treat it correctly. Therefore, a numerical scale for pain assessment is used, which zero indicates absence of pain and ten is the worst pain. Another form of understanding is the report of the characteristic of this pain if it occurs in forms of pangs, shocks, weight, tightness or burning.<sup>13</sup>

Thus, it is up to the nursing to apply the scale and register its value as well as the characteristic of the pain and is communicating the finding to the doctor so that it prescribes the appropriate analgesic. Furthermore, it was observed that the nursing team stimulates conversation and games as activities that disperse the patient's attention to pain.

[...] The patient with leukemia is a patient who often presents pain ... the psychological part of him affected will also increase the symptom, if the pain was in grade 5 will move to grade 7. So I have guide, talk, offer better conditions [...] we talk [...], distraction. So, they are peculiarities of hematology. And in this disease there is very common in young people and we have to have the peculiarity of young people too [...] we make... talk, distraction. Often he has nothing to do, then starts thinking about the pain. Now when he has something to do, then he thinks less of the pain. He gets more distracted. Water it down, and the pain does not come like this. And if it comes, it goes through it more easily. When the patient is very quiet... there is nothing to do, the pain comes easier... So, we put a game, a conversation, something that will distract [...] it it helps him not to think about the pain and even to go through the pain easier. When he is happier, he overcomes the pain. Hence, when you give him something he likes, he's happier [...] (N6).

It was identified in a study with adolescents that among the non-pharmacological strategies of pain relief that the distraction was the most cited, and also referred to benefit from conversations and play activities such as: listening to music, watching television, reading, playing video game, among other.<sup>14</sup>

The persistence of pain should be shared with the medical team in order to associate other analgesics and administration of subcutaneous morphine as an end-of-life care.

[...] and we use this way: subcutaneous morphine, we use the macro [...] is a patient who changes the decubitus, who takes care. He changes the diaper and takes care of it, to maintain the comfort so that he can then finish his life here in a more dignified manner [...] (N10).

Patients in palliative care benefit from subcutaneous administration of morphine, since opioids are well tolerated and their serum levels are close to those obtained after intramuscular administration.<sup>15</sup>

Comfort is an immediate and holistic experience, reinforced through the satisfaction of the needs of relief, tranquility and transcendence, addressed in four contexts of human experience: physical, psycho-spiritual, sociocultural and environmental. Therefore, it is suggested that the discomfort is distress, concern, pain and suffering.<sup>16</sup>

Another crucial factor in the life of the person with cancer is emotional involvement. The onco-hematological disease, because it is stigmatized and occasionally discovered at the doctor's office, at an unexpected moment by the patient causes a strong emotional shock not only for him but also for his relative.

For this reason they are patients who during hospitalization are more needy, sensitive, more demanding, anxious about the perspective of treatment and prognosis.

- [...] The emotional contribution in the moments especially of diagnostic elucidation, when it confirms the diagnosis there is a great shock for both the patient and the relative [...] (N1).
- [...] But in the beginning, in the first days, in a first hospitalization, this is very complicated. Because they are very frightened [...] he arrives is no longer feeling well and feels worse and worse [...] (NT4).
- [...] You have to be careful with his emotional part, that normally his emotional load is very [...] relative to the average patient is much bigger, he is more needy, much more demanding, much more is [...] let's say so sensitive right. Made aware of everything. Patients usually stay here for quite some time. They get very touched with everything. So, in the emotional area, I think you have to have [...] a lot of care [...] (NT5).

The emotional suffering associated with chronic disease, if ignored, can contribute to the reduction of the quality of life of patients and their relatives and adversely affect adherence to rehabilitation treatments.<sup>17</sup>

Considering the emotional support, the members of the nursing team reported that the emotional and psychological state of the patient should be observed, paying attention to the physiognomy of pain, worry and sadness. The conversation and clarification of the doubts contribute to decrease the anxiety. It was also mentioned the request of the support of the team of psychologists.

[...] Observing the emotional and psychological state of the patient [...] Observing if there is any change, request support from the team of psychologists or ourselves as professionals,

talking, clarifying, asking questions [...] Decreasing anxiety [...] (N1).

We observe... from the appearance to the patient's physiognomy that we observe that he is sad. And many times we do not just watch the pain. We watch his sensitivity [...] He's worried, he's sad. He does not know what he has. Or sometimes you know and you do not understand. You miss the family. You are feeling the last of the creatures (NT3).

Dialogue is highlighted as a facilitator of the interrelationship between patient, family and nurse, in addition to providing bond, weave bonds of trust and should therefore be used as one of the foundations of the relationship of care. It also facilitates the interaction and involvement among people, establishes the bases of care and is based on principles proper to the human relationship, such as friendship, affection, attention, respect, patience and solidarity. Moreover, it collaborates with coping with and conviviality with the different stages in the evolution of the disease. 18

Given this, it is observed that in both there is a relation of exchange and in this one who offers and who receives are affected and benefited, since they create bonds and bonds of respect, affection and trust and this way, the emotional relief.

Guidance was identified as one of the elements of oncohematological patient care, since it is necessary for these and their families to understand the process of health disease, risks and treatment, in order to assist the nursing and multidisciplinary team recovery.

Patient and family counseling should be related to neutropenic care due to the risk of infection and, consequently, worsening of the clinical situation and longer hospitalization.

[...] we advise you about this. Because their defense is diminished. So he has to take certain precautions to protect himself... If the patient does not help, if he does not understand the importance of this for his treatment, for his health. It will not work [...] So, guidance is very important there. Bring the patient to be part of the treatment, did you understand? He will help you to help him [...] So, in neutropenia we will guide this. Because if I say that he cannot eat fruit just because he cannot eat fruit [...] I will not eat while you see, and when you do not see I'm going to eat. My family will bring and I will eat hidden (referred to the patient talking). So we have to guide the family, too. If it will not be worse for him, he will not have an infection. It will make his picture worse, he'll stay longer. This is not what he wants [...] So, you must keep guiding, watching, practicing [...] (N6).

[...] Especially with the food intake. Be very careful that they do not consume raw food. This is very important [...] I am not a nutritionist, but we are in the infirmary and we know that the family often [pause], the patient is not feeding well or because he is really inept or because he is not satisfied. You're refusing the hospital food. Back home and this can lead to the risk of verminose. Contaminated

food. This is a huge damage to them [...]. Therefore, it is this kind of care with neutropenia [...] (N9).

The professionals of the nursing team have the concern to consider the family as a unit of care, which meets the contextualization, valuing the social structure in which the person is part.<sup>19</sup>

It was also reported by the team that these patients need to be advised as to the importance of the neutropenic diet for prevention of verminoses. Neutropenic diet is also known as low-microbial diet, ie it is a diet that contains only cooked foods.<sup>20</sup>

It is essential that the nursing team instruct patients about the importance of food and how to prepare it for its recovery. Relatives should also be part of this orientation, because if they do not understand the reason for the differentiated diet to the onco-hematological patient, they will bring to your institutionalized sick entity, foods that may offer risks, such as raw fruit.

Hence, patients and their relatives should be advised that all foods eaten by the patient, both in the hospital and in the home environment, need to be cooked, including fruits and vegetables.

Guidance was also given with regards to self-care:

[...] It guides how to perform hygiene, it guides the brushing of the mouth, the hair, the beard depending on the exams if you have a thrombocytopenic, you can no longer shave [...] (NA8).

For this reason, soft brushes should be used for brushing teeth, alcohol-free rinses and avoiding the use of dental floss during low platelets and avoid using sponges on sensitive parts of the body, in order not to cause cutaneous bleeding.<sup>22</sup> Flossing is accepted as long as it does not cause trauma.<sup>23</sup> Furthermore, it is also important for activities outside of your home to carry a bottle of gel alcohol.<sup>8</sup>

Another highlight was the cleanliness of the environment, as members of the nursing team reported that a clean and tidy environment is a more therapeutic environment.

[...] The cleaning staff always gives us an orientation regardless of what information he brings [...] (N9).

[...] we work with the cleaning staff showing them how important they are in the entire process of the ward... it makes the environment better, the patient is in a better condition as well, because the clean environment, a tidy environment is a more therapeutic environment [...] (N10).

Florence Nightingale already pointed out that the environment should be taken care as well, because without it, it would cause suffering to the patient beyond what the disease itself already caused. In this way, Nightingale "emphatically recommended, care for the external environment, such as cleaning, aeration, lighting, heating."<sup>24</sup>

Cleaning the environment is a process that involves not only the nursing but also the cleaning staff, since both are linked with reducing the infection for these patients. It is up to the nursing team to clean and disinfect certain health equipment, such as thermometer, stethoscope, among others. And the cleaning that includes all the horizontal and vertical surfaces, internal and external in the environment to which the patient is inserted is called terminal cleaning<sup>9</sup> and therefore performed by cleaning staff. This procedure prevents the pathogenic organisms of patients who have been discharged from being transmitted to patients who may eventually come to occupy the bed and thus avoid cross-transmission.

And finally, provide guidelines for hospital discharge such as: return to hospital in the presence of fever, malaise and weakness; on the adverse effects of chemotherapy that may be manifested at home and advice on visits received in order to avoid contact with people who may transmit diseases to them.

[...] We already know that in a while, she will be neutropenic. So, from now on, we are already guiding her, that she will not be able to eat mace, raw fruit, nothing raw, nothing that can bring infection to her [...]. In 15 days or so, he will begin to have neutropenia. Then, first thing to advise: if you have a fever, go back to the hospital immediately, call the hospital, communicate. Do not stay at home with fever thinking it is a cold that will pass [...]. But we have to say that it is important that food becomes a medicine. It is important that he strive to eat [...]. The patient undergoing chemotherapy is also easy for him to have diarrhea. So, we already guide you: you may have diarrhea [...] (N6).

Guiding when they are discharged from hospital, they will not absolutely neutropenic home, but with immunity not yet fully restored. Then, provide guidance about the visits [...] (N9).

The incidence of neutropenia-related fever is documented by up to 80% in hematological cancers after at least one course of chemotherapy. During the period of post-chemotherapy neutropenia, fever may be the only indication of infection, since the signs and symptoms of inflammation will be attenuated.<sup>25</sup> Therefore, it is a guideline to avoid possible hospitalization due to febrile neutropenia.

Additionally, it is fundamental that the patient requests the relay of people when family and friends visit him in his residence; to guide family and friends when having the flu to use a mask in the contact with the patient or if possible to avoid such contact; the patient should avoid enclosed places and contact with pets. If it is not possible to avoid enclosed spaces, look for places near doors and windows.

It is up to the nursing to act incisively in the identification and early action of these problems. A key factor in the success of the nursing intervention is the team's orientation to the onco-hematological and family patients, since both need to understand the risks and complications that can happen naturally over the course of the disease and how they can be prevented. And thus encourage them to be co-authors of this care.

Such research is limited by the number of participants involved, which shows the need to listen to more nurses and even in different scenarios to corroborate with elements of care identified here. It should be noted that there is a lack of knowledge in the area of care for onco-hematological patients, requiring further discussions in order to contribute to the depth and construction of new knowledge in this area. Nevertheless, this study has allowed us to get to know and discuss the elements of care that are inherent to the onco-hematological clientele and, therefore, can assist the nurses while planning for their care.

#### FINAL CONSIDERATIONS

This study identified the elements of nursing care that represent hospitalized onco-hematological patients the specificity of care, since they have a debilitating disease and an immunosuppressive treatment. The nursing team of the hematology unit is formed by nurses, technicians and nursing assistants whose singularity of this care is known by all involved.

It was observed that the elements of care are related to prevention of infection and bleeding, comfort, emotional support and guidance. The prevention of infection is performed by the nursing team performing hand washing, using aseptic techniques in the handling of devices and connections, use of personal protective equipment, use of permanent material such as a stethoscope, individual sphygmomanometer and thermometer, care with venous access, use mask by the employee seized or cooled and in transport by the patient. For the prevention of bleeding daily evaluation of the laboratory examination in order to detect possible risks and to draw up conducts such as, for instance, hygiene, be it corporal or oral.

In the element of comfort care, oxygen therapy, evaluation, and control of pain can be identified, including the use of opioids and play activities such as chat and games as an aid in minimizing pain. The emotional support element is linked to the emotional and psychological state of the oncohematological patient. Therefore, the nursing team should be attentive to the physiognomy of pain, worry and sadness, talk and clarify the doubts in order to reduce anxiety, as well as seek the support of the team of psychologists when necessary.

It is the guiding element in order for patients and their families to understand the health-disease process in order to assist the team in its recovery. Therefore, the same should be advised regarding the neutropenic diet, adverse effects of chemotherapy and home care, mainly return to the hospital in the occurrence of fever, malaise, and weakness. Moreover, guidance should be given to cleaning professionals regarding the importance of maintaining a clean and tidy environment to contribute to patient therapeutics.

Nonetheless, it was observed that such elements are essential for the maintenance of a safe and efficient treatment of these patients, not only in the hospital setting but also in the household context. Furthermore, they need to be understood and incorporated by all involved in order to guarantee quality of life for the onco-hematological patients.

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