CASE STUDY ON THE NURSING CARE DEMANDS OF HOSPITALIZED ONCO-HEMATOLOGICAL PATIENTS

ESTUDO CASO SOBRE AS DEMANDAS DE CUIDADOS DE ENFERMAGEM DOS PACIENTES ONCO-HEMATOLÓGICOS HOSPITALIZADOS

ABSTRACT

Objective: to identify the care demands of onco-hematologic patients hospitalized in the hematology ward of a University Hospital. Method: a qualitative study, type of case study, performed in the hematology unit of a University Hospital. A semi-structured interview was used with ten members of the nursing team. The data were analyzed by the technique of Content analysis in the Thematic Analysis modality. Results: Nursing team members reported that the care demands of onco-hematologic patients involve care and guidance to the patient and family; care in hygiene and food and maintenance of a safe and welcoming environment by a Specialized team. Conclusion: the identification of the nursing care demands of these patients favors the prevention of complications through a safe and systematized nursing care.

Descriptors: Oncology nursing; Nursing care; Hematology; Neoplasms; Hospitalization.

RESUMO

Objetivo: identificar as demandas de cuidado dos pacientes onco-hematológicos hospitalizados na enfermaria de hematologia de um Hospital Universitário. Método: estudo qualitativo, tipo estudo de caso, realizado na unidade de hematologia de um Hospital Universitário. Utilizou-se entrevista semiestruturada com dez membros da equipe de enfermagem. Os dados foram analisados pela técnica de análise de conteúdo na modalidade análise temática. Resultados: os membros da equipe de enfermagem relataram que as demandas de cuidados dos pacientes onco-hematológicos envolvem atenção e orientação ao paciente e família; cuidados na higiene e alimentação e manutenção de um ambiente seguro e acolhedor por um equipe especializada. Conclusão: a identificação das demandas de cuidados de enfermagem desses pacientes favorece a prevenção de complicações mediante uma assistência de enfermagem segura e sistematizada. Descritores: Enfermagem Oncológica; Cuidados de Enfermagem; Hematologia; Neoplasias; Hospitalização.

RESUMEN

Objetivo: identificar las demandas de cuidado de los pacientes onco-hematológicos hospitalizados en la enfermería de hematología de un Hospital Universitario. Método: estudio cualitativo, tipo estudio de caso, realizado en la unidad de hematología de un Hospital Universitario. Se utilizó entrevista semi-estructurada con diez miembros del equipo de enfermería. Los datos fueron analizados por la técnica de Análisis de contenido en la modalidad Análisis temática. Resultados: los miembros del equipo de enfermería relataron que las demandas de cuidados de los pacientes onco-hematológicos envuelven atención y orientación al paciente y familia; cuidados en la higiene y alimentación y mantenimiento de un ambiente seguro y acogedor por un equipo Especializado. Conclusión: la identificación de las demandas de cuidados de enfermería de esos pacientes favorece la prevención de complicaciones mediante una asistencia de enfermería segura y sistematizada. Descriptores: Enfermería Oncológica; Atención de Enfermería; Hematología; Neoplasias; Hospitalización.
INTRODUCTION

Leukemia and lymphomas are the most prevalent onco-hematological diseases and, according to the National Cancer Institute, 5,210 new cases of non-Hodgkin’s lymphoma (NHL) in men and 5,030 in women estimated for Brazil in 2016. Hodgkin's lymphoma (LH) was estimated in 1,460 cases in men and 1,010 in women. With regard to Leukemia, Brazil estimated 5,540 new cases in men and 4,530 in women in 2016.¹

The onco-hematological patient before the diagnosis of the disease may initially exhibit signs and symptoms that tend not to be valued as fatigue or weakness, but frighten when associated with other symptoms such as bleeding and enlargement of nodules in the neck and armpits.²

Thus, when seeking medical assistance, it is confronted with the diagnosis of cancer and the need for hospitalization, changing the routine and generating fear regarding diagnosis and treatment, since there is still a belief that such diagnosis is related to pain, invasive treatments and death.³

Hematological cancer shows the chemotherapy as one of the main therapeutic modalities. This is the use of isolated or combination chemicals having the goal of treating malignant neoplasms. Chemotherapeutic drugs act systemically at the cellular level in cells that are specified in the process of cell division, interfering with their growth and division. It is a therapy that has shown high efficacy in the cure of leukemia and in the early treatment of undetectable metastases.⁴

However, despite its high efficacy, chemotherapy causes a variety of adverse effects, such as gastrointestinal, pulmonary, cardiac, hepatic, neurological, renal, vesical, dermatological toxicities, reproductive dysfunction, metabolic alterations, allergic reactions, fatigue, and toxicities hematological diseases, including neutropenia, anemia, and thrombocytopenia.⁵

Despite the existence of oral chemotherapeutic drugs, much of it is administered intravenously. Due to the time of treatment, endothelial irritability, and to the risk of tissue necrosis that can occur in the event of extravasation of some of these drugs into the subcutaneous tissue, the implantation of central venous catheters is generally indicated.⁶

Given this, nursing must know not only of the health-disease process that permeates hematological cancer, but also of its treatment and adverse effects, since it is a professional who spends most of the time at the bedside and it will face situations of physical, emotional, psychosocial and spiritual fragility that will require of this team of care that go beyond the hospital environment.

With the purpose of contributing to a specific and qualified care offering this patient quality assistance, this study had as objective to identify the care demands of onco-hematological patients hospitalized in the hematology ward of a University Hospital, according to the team’s nursing at the University Hospital (UH).

METHOD

This is a qualitative, case study, conducted in the period from February to June 2013, in the hematology unit of a UH in Rio de Janeiro, Brazil. This unit is structured with eight beds and the nursing staff is composed of 20 employees, seven nurses, 11 nursing technicians and two nursing assistants, of which 10 members of the nursing team participated in the study, meeting the following criteria inclusion: members of the nursing team - nurses and nursing technicians of both genders, filled in the hematology sector of the UH, for at least 2 months and those of exclusion who had no interest and willingness to participate in the study; professionals of the nursing team on vacation and/or absent from the sector in the period of data production.

The data were produced through semi-structured interviews, recorded in digital devices and later transcribed in full and identified by the initial letter of the professional category (N) for Nursing (NT) for Nursing Technician and (NA) for Nursing Assistant, followed by the Arabic number for the interview order in: N1, NA2, NT3, NT4, NT5, N6, NT7, NA8, NA9 and N10.

A thematic analysis was used for the analysis of the data to discover the sense nuclei that compose the communication, whose frequency means something for the object being analyzed.⁷ After reading the data, it was identified that the demands of patient care onco-hematologic involve care and guidance to the patient and family; care in hygiene and food and maintenance of a safe and welcoming environment by a Specialized team.

This study is a cross-section of the master’s thesis in Health Care Sciences of the Afonso Costa/EEAAC Aurora Nursing School of the Fluminense Federal University/UFF, whose research project was approved by the Research Ethics Committee of the institution under Opinion Number 144,119. Participants were
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guided by the objectives of the research and signing the Free and Informed Consent Term.

RESULTS AND DISCUSSION

◆ Sociodemographic data

Ten members of the nursing team of the hematology sector were part of the research, with four nurses, four nursing technicians and two nursing assistants (Figure 1)
<table>
<thead>
<tr>
<th>Professional</th>
<th>Age</th>
<th>Gender</th>
<th>Marital status</th>
<th>Education level</th>
<th>Function</th>
<th>Work schedule</th>
<th>Work regime</th>
<th>Time in the sector</th>
<th>Postgraduate studies</th>
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<th>Course in oncology and/or hematology</th>
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<tr>
<td>N 1</td>
<td>55</td>
<td>F</td>
<td>Married</td>
<td>Higher Education in Nursing</td>
<td>Nurse</td>
<td>DS 12 x 60</td>
<td>Civil servant</td>
<td>4 years</td>
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<td>NA 2</td>
<td>49</td>
<td>F</td>
<td>Single</td>
<td>Complete High School</td>
<td>Nursing Assistant</td>
<td>Daytime worker 7 am to 1 pm</td>
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<td>no</td>
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<tr>
<td>NT 3</td>
<td>51</td>
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<td>Complete High School</td>
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<td>DS 12 x 60</td>
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<tr>
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<td>38</td>
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<td>Higher Education in Nursing</td>
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<td>DS 12 x 60</td>
<td>Civil servant</td>
<td>5 years</td>
<td>Peoples and Professional Master’s</td>
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<td>no</td>
</tr>
<tr>
<td>NT 5</td>
<td>54</td>
<td>M</td>
<td>Married</td>
<td>Complete High School</td>
<td>Nursing Technician</td>
<td>DS 12 x 60</td>
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<td>N 6</td>
<td>56</td>
<td>M</td>
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<td>Higher Education in Nursing</td>
<td>Nurse</td>
<td>DS 12 x 60</td>
<td>Civil servant</td>
<td>5 years</td>
<td>Pediatrics and Professional Master’s</td>
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<td>no</td>
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<td>23</td>
<td>F</td>
<td>Single</td>
<td>Higher Education in Nursing</td>
<td>Nursing Technique</td>
<td>NS 12 x 36</td>
<td>Civil servant</td>
<td>1 year and 1 month</td>
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<td>no</td>
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<td>Higher Education in Nursing</td>
<td>Nursing Assistant</td>
<td>DS 12 x 60</td>
<td>Civil servant</td>
<td>7 months</td>
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<tr>
<td>N 9</td>
<td>56</td>
<td>F</td>
<td>Divorced</td>
<td>Higher Education in Nursing</td>
<td>Nurse</td>
<td>DS 12 x 60</td>
<td>Civil servant</td>
<td>4 years</td>
<td>Hospital Administration and Hematology, Blood Therapy and Supportive Therapy</td>
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<td>no</td>
</tr>
<tr>
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<td>43</td>
<td>F</td>
<td>Divorced</td>
<td>Higher Education in Nursing</td>
<td>Nurse</td>
<td>Daytime worker 7 am to 1 pm</td>
<td>Civil servant</td>
<td>10 years</td>
<td>Dermatology and Hematology, Blood Therapy and Supportive Therapy</td>
<td>yes</td>
<td>But they do not remember</td>
</tr>
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</table>

Figure 1. Characterization of the Nursing Team of the Hematology Unit. Rio de Janeiro (RJ), Brazil, 2013.
Source: Field research HUAP/ Niterói - 2013        SD: Day Service SN: Night Service
Eight members of the nursing team are women and two are men. According to the 2010 Census, 51% of the population is comprised of women and 49% of males.

The age ranged between 23 and 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 nearly doubled from 1.7% in 2000 to 3.1% in 2010.8

As for the education level, three have completed High School and seven have completed Higher Education in Nursing, which indicates that most of the team with specific training in the area.

The level of education of the population has increased in the population aged 10 years old or more per level of education from 2000 to 2010, the percentage of people with at least a completed university course increased from 4.4% to 7.9%.7

As for working hours, seven are part of the daytime service in the 12 x 60 shift scheme, one is part of the night service in 12 x 36 shifts and two are daytime workers from 7 am to 1 pm. As for the work regime, nine are bankrupt and one is hired.

The duration of the sector ranged from seven months to 15 years of service, showing that the sector team has significant experience in the sector.

In relation to professional qualification, six have a postgraduate course. One has a Master's degree in nursing and an MBA, another one with a postgraduate degree in Health Promotion with emphasis on family health, one in Pediatrics and Professional Masters, one with post in Blood Center Management, a member of post-Hospital Administration and in Hemotherapy, Hematology and Support Therapy; and another nurse with post in Dermatology and Hematology, Hemotherapy and Support Therapy.

It should be noted that the institution has a professional qualification program that encourages the participation in undergraduate and postgraduate courses offered by the teaching units with a scholarship to the administrative staff, according to the institutional development project of the University.

**Nursing Care Demands**

Nursing staff members reported that the onco-hematological patient care demands involve Care, Infection Prevention Care, Maintenance of a safe and welcoming environment by a Specialized team and Patient and Family Guidance.

Regarding the Care demand, it was mentioned that one must be attentive to the conditions of the hospital admission, the evolution of the patient during the hospitalization, how the patient reacts to the treatment, besides the physical and biological evaluation, since they arrive debilitated, physically exhausted and presenting fatigue to the minimum efforts. This can be evidenced in some speeches of the subjects:

*Each phase depends on the stage he… each pathology and depending on the stage he finds there is a demand for specific care […]. (N1)*

According to the speech of the subject NA2, there is a demand for care of these patients since the hospitalization which involves guidelines on the hospital routine and evaluation of their conditions at the time of admission, because in some situations they come from another institution with fragile health and with infection.

*The conditions the patient arrives here in the hospital. I think the observation of the hospitalization and the hydration, his condition, the tests that he has to perform to see how they are, because sometimes he already comes from another unit without the treatment and it is very difficult for him to recover, there must be more attention, in the transfusions, in the conditions of him to go or not to the bathroom wandering, in the conditions of hygiene, feeding. That is what we observe more. (NA2)*

In the course of the onco-hematological patient's illness, he is more vulnerable to immunosuppressive infections, due to the disease, such as leukemia, and by treatment with chemotherapy, and in this context of the first contact between the patient and the team, the reception is the moment more important for establishing a relationship of trust and complicity.9

There are three very important factors for the success of this task: specific attention; cordiality of the team and problem-solving.10 It is fundamental that the patient understands the care process, since, in this way, he/she can identify signs and symptoms of the disease, ways of minimizing risks, ways to prevent complications, and measures to promote health.9

*He is a different patient that comes to us completely exhausted, debilitated. At the slightest effort, he gets tired. Medication, a lot of medication, has chemotherapy. So he demands the utmost attention from you. He's a very complex patient because he's all compromised, do you understand? Of the respiratory part, of the physical in general. He's got a compromised lung, he's starting to feel too tired, not being able to get through a chair to take in the bath is difficult. To*
take him, you cannot leave him alone, you have to be together because at the same time that it is so apparently well, it begins to feel tired and you cannot leave his side. (NT4)

In a quality-of-life study of patients with hematologic cancer undergoing chemotherapy, it was observed that the side effects of chemotherapy were a predominance of weakness and insomnia, followed by fatigue.

Cancer-related fatigue is a common and treatable symptom that profoundly interferes in many aspects of the quality of life of cancer patients. It is related to radiation therapy, chemotherapy, and daily activities. Fatigue associated with chemotherapy depends on factors such as neurotoxicity, encephalopathy, the effect of the drug on hormones, low magnesium, among others. And in the study on the quality of life of patients with hematologic cancer, fatigue presented a statistically significant relationship with the functional performance scales of paper, physical function and cognitive function.

The initial approach to cancer-related fatigue requires a broad view and understanding of the patient about their own symptoms, which usually requires individualized treatment. Most patients with fatigue will benefit from non-pharmacological treatment.

In a review study on fatigue, it was identified that the non-pharmacological treatment will show benefits with measures such as cognitive-behavioral therapy, exercises, hypnosis, relaxation and psychoeducation for fatigue.

Another demand for care showed by members of the nursing team was prevention care related to infection, as can be observed in the following speeches of the subjects:

[...] General care for all onco-hematologic patients would be the control and prevention of infection of these patients [...]. (E1)

Improved care, advances in diagnosis and knowledge of new chemotherapy drugs have prolonged the lives of cancer patients. However, such advances simultaneously allow the appearance of adverse and infectious events by the aggression produced by chemotherapy, radiotherapy, and immunosuppressants.

The NA2 subject mentioned isolation and collection of nasal and rectal swabs as a prevention and infection control measure.

When the patient arrives here [...]. The team already has a swab collection protocol. One nasal swab, two rectal [...]. (NA2)

The hematology sector hosts weekly swab collections on a weekly basis, one nasal for methicillin-resistant Staphylococcus aureus (MRSA) and two rectals for vancomycin-resistant Enterococcus (VRE) screening. It was observed that both the nursing technician and the nurse perform the collection and for the same mask, capote and glove of the procedure are used to prevent cross infection. One of the techniques that performed the collection reported that the swab can be moistened both with saline 0.9% and with the culture of the swab.

The oncological patient is submitted to several hospitalizations and to various diagnostic and therapeutic procedures that prolong their stay in the hospital environment and, consequently, are exposed to colonization by virulent microorganisms and many of them resistant to antibiotics.

Thus, contact isolation prevents colonization by pathogenic organisms in non-exposed patients and the collection of weekly swabs enables to identify those that were not colonized and that were exposed to them since colonization by a pathogenic microorganisms in the onco-hematological patient represents a longer time of hospitalization and high mortality rates.

In addition to the above-mentioned care, team members reported the use of personal protective equipment (PPE) as a means of prevention and control of infection and cross-transmission; permanent material, such as thermometers and blood pressure device (BP), individualized; exchange of the macro nebulation mask and venous access.

[...] leukemia and lymphoma patients [...] are more immune-depressed [...] because of this, we are very careful, in the matter of having all the PPE [...] Each one has its materials: thermometer, BP machine, everything separated, just so we try to reduce this cross-infection issue [...]. We have to check [...]: equipment, [...]. The devices of [...]. microembolization. All this has time to be changed, to not let pass the time. Every 72 hours equipment has to be changed, peripheral access also we always try to change in 3 days to not proliferate any type of bacteria (NT5)

[...] venous access may be peripheral, but it cannot exceed three days, cannot have phlogistic signs [...]. In fact, the ideal would be to have access only to the chemotherapeutic. Therefore, that access should remain for only 3 days, it should be changed every 72 hours and [...] cannot be in place [...]. (NT5)

Immune deficiency is characterized by baseline and age pathology; dose and duration of immunosuppressive therapy; epithelial integrity; humoral and cellular immune status; metabolic factors such as malnutrition.
Sousa RM, Espírito Santo FH do, Pinheiro FM.

Case study on the nursing care demands...

environment because by providing this patient an individualized room, the subject's integrity is also preserved to provide a welcoming environment to the one who is shaken and fragile emotionally by cancer and its treatment.

It is necessary for nurses to have a close observation of everything that is around the patient to provide him with a suitable, safe, pleasant and comfortable environment.²

[...] they would need private beds. Individualized beds [...]. Preserving the immunity and individuality of each individual and the prevention of infections [...]. (NA8) Structure of the hospital [...]. You do not have an environment to put patients who are in contact restriction [...]. A partition between one bed and another, because it makes it much easier for you to provide [...] that environment for a restriction of contact [...]. (N10)

Ordinance Number 529 of April 1, 2013, instituted the National Patient Safety Program (PNSP) aimed to contribute to the qualification of health care in all health facilities in the national territory. And the PNSP Implementation Committee has to propose and validate protocols, guides, and manuals aimed at patient safety in different areas, such as healthcare-related infections as its competence, among others.²⁰

Individualizing a bed does not only mean preserving the subject's identity but also providing a risk-free environment such as cross-infection that can be made easier when the private room is not established. And whatever infection it is, in the onco-hematological patient, is devastating due to its compromised immune status.

Regarding this environment of care, N10 also reported that it is necessary to have a network of gases in good shape to ensure that oxygen is offered.

[...] They are patients who need an entire infrastructure to have them here in the ward [...]. You need a good network of gases working for you to offer, oxygen supply and a whole apparatus because that patient can aggravate [...]. (E10)

Oxygen supply is emphasized by the team nurse since they are patients who commonly present dyspnea due to their anemic state due to the pathophysiology of the disease. Providing oxygen to them is one of the comforts and even the prevention of diseases to which the nursing is responsible. But for this, such members must have a proper hospital physical structure.

Thus, individualizing the bed, putting patients in contact precaution, as well as having a structure adequate to meet the

hyperglycemia and liver dysfunction; abnormality of the reticuloendothelial system and presence of immunity modulating infections, such as human immunodeficiency virus or cytomegalovirus.¹⁴

Among the factors that influence the development of infections, the most important are immunological status, age (newborns and the elderly are the most vulnerable), antibiotic abuse, invasive procedures, immunosuppression, and failures in infection control procedures.¹⁶

Thus, the presence of PPE, the use of the individualized permanent material as well as periodic replacement of nebulization masks to avoid that the patients who are already immunologically compromised by the disease and treatment are contaminated by pathogenic microorganisms from the procedures necessary for their assistance.

The Centers for Disease Control and Prevention (CDC) guidelines in its 2011 edition establish the exchange of the peripheral venous catheter every 72-96 hours to reduce the risk of infection and phlebitis in adults.¹⁷ With respect to the macro nebulization mask, the article is of single use and should be discarded for each patient and recommends the daily change between the use in the same patient and the admission of a new patient as a way to reduce the risk of infection.¹⁸

Another demand mentioned by the nursing team was in relation to the Maintenance of a safe and welcoming environment by a Specialized team. The team members reported the hospital physical structure as important for preserving the subject's individuality and for preventing infection.

Among the, there is the need for rooms, where each patient could have his individualized bed, to carry out the precaution of contact of patients colonized by a pathogenic microorganism or protective isolation in neutropenic.

[...] And here we have another problem because here we do not have separations, there are four in each ward and they die in the presence of the other. This gives a very great depression [...]. he is feeling the same situation as the other. Walk in front of him and evolve to death [...]. and he sees that he is in the way [...]. NT4.

When the other becomes ill, it brings us the certainty of our physical and emotional vulnerability. The pain of the other often hurts who is directly or indirectly attached to it. Be spectator or supporting actor, be with someone who suffers is at least paralyzing.¹⁹

Therefore, it is identified that it is a demand for care that goes beyond the physical

English/Portuguese

minimum physiological needs are necessary not only to provide a pleasant environment but also to offer and guarantee safety and quality of care.

Orientation to the family and the patient was another demand for care reported by members of the nursing team. These are related to care for the prevention and control of infection; on the possibility of transfusion of blood components during hospitalization; on the use of chemotherapy and its adverse effects; guidelines on a neutropenic diet; hospital routines and hospital discharge.

[...] the guidance to the family regarding such care also regarding infection control [...]. (N1)

[...] Guidelines on food, what they can eat, what they cannot [...]. 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 [...] Guiding the patient of what will happen or what may happen and which is the action he has to take [...]. In 15 days or so, he will begin to have neutropenia. Then, the 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 point out that it is important that food becomes a medicine. It is important that we strive to eat [...] The patient with chemotherapy is also easy for him to have diarrhea. So, we already guide you: you can have diarrhea [...] (N6)

[...] Especially with food. Be very careful that they do not consume raw food [...] and this can lead to the risk of verminosis. Contaminated food. This is a huge damage [...] Guiding them when they are discharged, they are not absolutely neutropenic at home, but with immunity not fully restored. So, guide the issue of visits, in the hospital environment. The hour of the visit is not an hour, I think, for the nursing to move away, on the contrary, it is an hour for people is inside the ward, seeing the people problems, to sanitize the hands. Do not come in with street clothes and hug the patient. Do not sit on the bed [...]. (N9)

It was observed that infection control should also involve patient and family members, since they need to understand the reason for such control to join the nursing and all multi-professional team, they can adhere to the care and be a helper in the assistance to the onco-hematological patient.

It is indispensable the preparation of the nurse, as well as the relatives who participate in the process of assisting the patient with hematological alterations. Throughout the assistance, interventions of an educational nature are also present, aiming to inform the patient about the disease process and treatment and their participation in self-care.

Thus, patients and family members should be advised about this infection control, by hand hygiene in the contact with the patient, and the time of the visit is one of the moments mentioned by the team as a disseminator of information. Due to the anemia, they are patients who can constantly use the transfusion of blood components. Therefore, guiding them about such possibility minimizes fears and yearnings.

The risk for infection is present, mainly due to the alterations resulting from the hematological disease (immunosuppression, leucopenia, anemia), as well as due to the illness that requires prolonged hospitalization, use of invasive procedures and treatment with drugs such as antibiotics and chemotherapy.

Chemotherapy is the basis of the treatment of hematological cancer and it comes to the adverse effects that are causing discomfort, suffering, and interference in their daily activities.

In the study on coping and resilience of patients undergoing chemotherapy and their relatives, both patients and their relatives mentioned the need to change their daily activities, especially in the five days after the infusion of chemotherapy. During this time, these patients feel tired and weak forcing them to stop doing some of the activities as they did before starting treatment.

Besides the fatigue and weakness, chemotherapy may lead to neutropenia due to the reduction of cell lines due to altered spinal function. Myelosuppression is particularly observed in the granulocytic lineage, mainly as a result of neutrophil counts.

Due to the risk of infection and to all the care already mentioned above, the onco-hematological patient must have a nutritional evaluation both in the hospital and in the home environment. Thus, a neutropenic diet is usually offered to patients hospitalized with neutropenia.

The neutropenic diet aims to significantly reduce the number of bacteria and other microorganisms that can be found in some foods and prevent the patient from possible infections.

When the onco-hematological patient is discharged from the hospital, they are not yet fully recovered, and it is necessary to remain with certain care in the home environment; one of them is the diet.

In this way, it is worth noting some recommendations for a neutropenic diet that
can be carried out at home: all uncooked vegetables and fruits should be avoided. Thus, pasteurized juices, canned fruit, and cooked vegetables are permitted, but meat, fish or eggs should be cooked properly and the intake of raw yolk is discouraged; Avoid nuts and other uncooked nuts; Ingestion of pasteurized dairy products; Do not ingest yogurts and derivatives with live microorganisms (lactobacilli) and any cream cake; Avoid eating in places where you are not sure how they prepare the food; Ingest bottled water. If the water comes from wells, it should be boiled previously for 1 minute.25

Another key orientation for hospital discharge is the return to the hospital in the presence of fever. Often neglected care that can have serious consequences for the neutropenic patient is delays in finding the health service in case of fever.24 Oncologists recognize that delays in starting the antibiotic in patients with febrile neutropenia can lead to serious infections, a threat to life and sometimes fatal consequences. Fever above 38.3°C is emphasized as an important adverse effect requiring immediate medical evaluation.26

Fever is a frequent complication of antineoplastic chemotherapy in a neutropenic patient.26 It occurs in 10 to 50% of patients with solid tumors and in more than 80% of patients with hematological malignancies, leading to increased morbidity and mortality.27 When fever occurs associated with neutropenia, there is an oncological urgency, febrile neutropenia.22 Thus, it is necessary that this patient is immediately referred to a referral hospital and the impossibility of this, the nearest.

### CONCLUSION

The onco-hematological patient presents a peculiarity of nursing care demand which makes them specific and complex, requiring specialized nursing attention from the nursing team. Such expertise requires domains and skills that go beyond scientific knowledge. It is necessary to have the emotional self-control to deal with situations and adversities that the severity of the patients' clinical situation exposes them.

In this way, it was observed that the demands, Care, Infection Prevention Care, Maintenance of a safe and welcoming environment by a Specialized team and Guidance to the patient and family are linked to the hematological alterations that the onco-hematological patient presents due to the disease and treatment.

That is, it is a disease that affects the spinal cord production and reduces the cell lines causing in these patients, a series of manifestations and complications from anemia, thrombocytopenia, and neutropenia. Chemotherapy is the basis of the therapy used in these patients. Such treatment, due to its role in cell division, affects healthy and diseased cells, causing hematological and non-hematological toxicities, further aggravating the clinical picture of the onco-hematological patient. Such repercussions culminate in the aforementioned demands.

The health education of both patients and their families is a strong ally of nursing in the training of those to self-care, both in the hospital environment and at home, so the patient is the controller of their evolution and severity.

Such study is limited by the number of participants interviewed. New scenarios need to be investigated to ratify the identified care demands or even identify new demands not portrayed here.

The identification of the nursing care demands of these patients allowed to deepen the particularities presented by the onco-hematological client evidenced the professional practice of the UH nursing and helps in the organization and planning of the interventions based on the needs of the patients, contributing to the systematization of the nursing care.

### REFERENCES


Case study on the nursing care demands...


