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Degree of complexity of nurse care: associations in clinical oncology in breast cancer

Grau de complexidade dos cuidados de enfermagem: readmissões hospitalares de pessoas com câncer de mama Grado de complejidad de los cuidados de enfermería: asociaciones en oncología clínica en cáncer de mama

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ABSTRACT

Objective: It was to evaluate the degree of complexity of nursing care required for breast cancer patients who are readmitted to hospital.

Methods: Cross-sectional study whose 108 subjects were breast cancer patients in unplanned readmission into the oncological unit of hospital in Brazil. Used for documentary analysis and the data analyzed statistically.

Results: The predominant degrees of complexity of complexity of nursing care were semi-intensive (36.1%) and intensive care (36.1%). In the multivariate analysis, only performance status (p<0.001) and arterial hypertension (p=0.024) remained associated with the degree of complexity.

Conclusions: The degree of complexity of patients readmitted was predominantly semi-intensive and intensive. This evaluation implies in the management of the care by means of the knowledge of the the profile breast cancer patients in hospital readmission and the detection of the characteristics associated to the degree of complexity.

Keywords: Oncology nursing. Patient readmission. Needs assessment. Breast neoplasms.

RESUMO

Objetivo: Avaliar o grau de complexidade dos cuidados de enfermagem de pacientes com câncer de mama, readmitidas na oncologia clínica.

Métodos: Estudo transversal com 108 pessoas com câncer de mama, readmitidas na oncologia clínica num centro de alta complexidade de oncologia do Rio de Janeiro durante 2015. Realizada análise documental, sendo dados analisados estatisticamente.

Resultados: Os graus de complexidade de cuidados de enfermagem predominantes foram semi-intensivos (36,1%) e cuidados intensivos (36,1%). Na análise multivariada, apenas a performance status (p<0,001) e a hipertensão arterial (p=0,024) permaneceram associados ao grau de complexidade.

Conclusões: O grau de complexidade das pacientes readmitidas foi predominantemente semi-intensivo e intensivo. Essa avaliação implica no gerenciando do cuidado por meio do conhecimento do perfil das pacientes com câncer de mama em readmissão hospitalar e da detecção das características associadas ao grau de complexidade.

Palavras-chave: Enfermagem oncológica. Readmissão do paciente. Determinação de necessidades de cuidados de saúde. Neoplasias da mama.

RESUMEN

Objetivo: Evaluar el grado de complejidad de los cuidados de enfermería en pacientes con cáncer de mama, readmitidas en oncología clínica.

Métodos: Estudio transversal con 108 personas con cáncer de mama, readmitidas enla oncología clínica de un centro de alta complejidad en oncología durante el año 2015. Se realizó el análisis documental, siendo los datos analizados estadísticamente.

Resultados: los grados de complejidad de los cuidados resultó en semi-intensivos (36,1%) e intensivos (36,1%). En el análisis multivariado solo la perfomance status (p < 0,001) y la hipertensión arterial resultaron vinculados al grado de complejidad.

Conclusiones: el grado de complejidad de las pacientes readmitidas fue predominantemente semi-intensivo e intensivo. Esta evaluación implica una gestión de cuidados, mediante el conocimiento del perfil de las pacientes con cáncer de mama en readmisión hospitalaria y de la detección de las características asociadas al grado de complejidad.

Palabras clave: Enfermería oncológica. Readmisión del paciente. Evaluación de necesidades. Neoplasias de la mama.

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■ INTRODUCTION

The classification of patients according to their degree of complexity is an assessment strategy able to contemplate the real needs of patients. For its implementation, it is recommended to use a patient classification system in order to systematically and effectively identify such needs⁽¹⁾.

Breast cancer has great magnitude regarding public health in Brazil and around the world⁽²⁾ and nursing care for patients affected by such neoplasms should be based on the health needs of these individuals.

In several regions of Brazil, breast cancer is still diagnosed in a late stage⁽³⁾, leading to the implementation of more aggressive treatments that increase patients' morbidity and expose them to greater episodes of hospital admissions and readmissions for health rehabilitation⁽⁴⁾.

The hospital readmission has great relevance in cancer care. The possible complications of cancer patients often require hospital care for the rehabilitation of their clinical condition. A state hospital in Bauru evaluated the hospital readmission and its possible causes and concluded that these may occur due to conditions linked to in-hospital care, the clinical status of the individual and even social and environmental issues. It was also found that many of these readmissions could have been avoided with the prior knowledge of their associated factors⁽⁵⁾.

The nursing team represents a very important segment in hospital care. The lack of financial resources in the health sector has caused a reduction in costs and, consequently, a cut in human resources, a fact that strongly affects the quality of the nursing care provided.

For quality care, the nurse in charge of the care management should be able to offer systematized care. For this, it is essential that there is adequate care planning tailored to the needs of the individual, providing the resources needed for quality and safe care⁽²⁾.

From this perspective, the Patient Classification System is an assessment strategy that contemplates the real needs of the patients and subsidizes the decisions of the nurse in the management of the care, from the degree of complexity of the care⁽²⁾.

In this sense, this study was designed with the objective of assessing the degree of complexity of the nursing care of people with breast cancer in a situation of hospital readmission, in addition to its implication for the management of the nursing care.

METHODS

A descriptive and retrospective study with a population composed of patients with breast cancer readmitted up to 30 days after discharge from the clinical oncology of a High Complexity of Oncology Center (CACON – "Centro de Alta Complexidade de Oncologia") in the city of Rio de Janeiro, Rio de Janeiro, Brazil.

This period was specified in alignment with the evidence presented by the American Society of Clinical Oncology in relation to the predominance of research on late hospital readmissions, that is, periods up to 30 days after discharge. The readmission has been considered an indicator of quality of care, which makes it possible to assess and rethink the care and the planning of care that will be necessary after discharge, identifying avoidable factors of early discharge and avoiding a new non-programmed hospitalization⁽⁶⁾.

Initially, the number of hospitalizations in clinical oncology in 2015 was searched in an information system of the study setting. These data were tabulated in Excel, version 2010, and from there, a selection of the patient records in hospital readmission situations was performed within 30 days after discharge using a dynamic table. This selection comprised a total of 131 people. From the use of the inclusion and exclusion criteria mentioned below, there was a loss of 23 records. Therefore, the study population had a value equal to 108 cases of hospital readmission within 30 days after discharge from clinical oncology.

The inclusion criteria were: patients aged 18 years old or over; presence of a hospital admission authorization (HAA) registry with a requesting unit designated for clinical oncology. The exclusion criteria were: patients who were not registered in the medical records and information systems corresponding to the first day of the hospital readmission of people with breast cancer readmitted in the clinical oncology hospitalization unit within 30 days after hospital discharge.

It should be highlighted that the inclusion in the study of participants only in hospital readmission was used from the justifications of studies on the degree of dependency in hospitalization units that highlight that patients with greater number of hospitalizations are more complex⁽⁷⁾.

The technique of data collection used was the documentary analysis. Initially, the data collection was performed in the hospital administration information system, afterwards in the electronic medical record, and lastly in the physical records of the research participants.

The instrument for data collection was based on the structured script addressing the following independent variables: sex, age, marital status, schooling, main occupation, monthly income, level of care in the care network in which the diagnosis of the disease occurred, staging of the breast cancer, Scale Performance (PS) Status according to the Zubrod's Scale, comorbidities and hospital readmission interval, the latter being up to 10 days or between 11 and

30 days after discharge. As a dependent or outcome variable, the degree of complexity of the nursing care was obtained, that is, the Perroca's patient classification system⁽⁸⁾, composed of nine indicators whose sum of scores was the result of the classification of the degree of complexity of the care obtained.

In the study setting, the PS according to the Zubrod's Scale is assessed and recorded in the patient's chart by the multidisciplinary team during outpatient visits and hospitalizations. This assessment of the functional capacity of the patient ranges from 0 to 4, in which 0 is the fully functional and asymptomatic one, and 4 is the patient being restricted to bed, very sick, requiring active care provision⁽⁹⁾.

The staging of breast cancer classifies the extent of the disease through the TNM classifications, obtaining a general stage that varies between I, II, III and IV. Stage I cancers are the least advanced and often have better prognoses. Stage IV cancers have distant metastasis and are more advanced⁽¹⁰⁾.

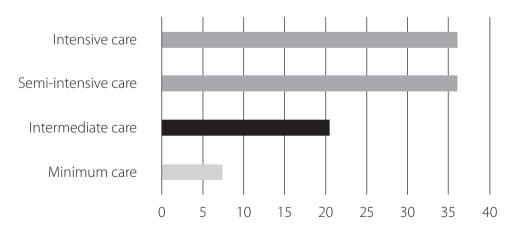
The Perroca's patient classification system comprises nine indicators that correspond to specific areas of the nursing care in the biological and psychosocial dimensions of individuals, as well as those related to care planning. These indicators are: planning and coordination of the care process; investigation and monitoring; body care and eliminations; skin and mucous care; nutrition and hydration; locomotion and activity; therapy; emotional support; health education. Their respective answers have scores ranging from 1 to 4 points. The degree of complexity of care is defined by the sum of these scores, classified as: Minimal care (9-12 points), intermediate care (13-18 points), semi-intensive care (19-24 points) or intensive care (25-36 points).

The data were tabulated and analyzed in the SPSS (Statistical Package for Social Sciences) statistical software version 21.0. In order to assess the association between the variables and the outcome degree of complexity, the bivariate analysis was first performed with the Pearson's Chi-Square Test and Fisher's Exact Test. In this first step, the value p<0.20 was used to indicate which variables would be used in the association test. Subsequently, the multivariate analysis was performed with the variables considered with statistical significance, and the Binary Logistic Regression test using the Forward method was carried out. As statistical significance, p value <0.05 and confidence index of 95% were taken.

Due to the impossibility of signing the Free and Informed Consent Term (FICT) by the research participants, a Confidentiality Term was signed to preserve the privacy of the information collected through the documentary analysis. The study originated from the dissertation "Grau de complexidade de cuidados de enfermagem em readmissão hospitalar na oncologia clínica de câncer de mama" (Degree of complexity of the nursing care in hospital readmission in the clinical oncology of breast cancer)⁽¹¹⁾. It was approved by the Research Ethics Committee of the National Cancer Institute under the opinion registered in the CAAE: 53075716.2.3001.5274.

RESULTS

It was verified that 08 patients with breast cancer readmitted within 30 days after discharge (7.4%) were categorized in the minimum nursing care degree of complexity, 22 in intermediate care (20.4%), 39 in semi-intensive care (36.1%) and the same amount, 39 (36.1%) in intensive care.



Graph 1 – Percentage of people with breast cancer readmitted in the clinical oncology hospitalization unit according to the degree of complexity of the nursing care. Rio de Janeiro – RJ, 2015

Source: Research data, 2017.

From the statistical analysis of the data, according to Table 1, no statistical significance was found between the sociodemographic characteristics and the degree of

complexity, as well as between the characteristics of the care network and the degree of complexity of the nursing care.

Table 1 - Distribution of sociodemographic characteristics, care network, time of hospitalization and its relationship with the degree of complexity of the nursing care of people readmitted to the clinical oncology (n=108). Rio de Janeiro – RJ, 2015

Variable	Minimal/ intermediate care	Semi-intensive/ intensive care	Total	P value
	n (%)	n (%)	n (%)	
Age group				
Less than or equal to 50 years old	9 (8.3)	29 (26.9)	38 (35.2)	0.484ª
Over 50 years old	21 (19.4)	49 (45.4)	70 (64.8)	
Marital status				
Has a partner	16 (15.1)	31 (29.2)	47 (44.3)	0.242ª
No partner	14 (13.2)	45 (42.5)	59 (55.7)	
Schooling				
Elementary and High School	23 (21.3)	67 (62)	90 (83.3)	0.102 ^b
Higher Education	5 (4.6)	11 (10.2)	16 (14.8)	
Illiterate	2 (1.9)	0 (0)	2 (1.9)	
Occupations – CNAE ¹				
CNAE Occupations Groups	15 (13.9)	37 (34.3)	52 (48.1)	
Housekeeper	14 (13.0)	35 (32.4)	49 (45.4)	0.889 ^b
Retired / pensioner	1 (0.9)	6 (5.6)	7 (6.5)	
Income				
< 1 minimum wage	8 (9.6)	15 (18.1)	23 (27.7)	
1 to 2 minimum wages	11 (13.3)	33 (39.8)	44 (53.0)	0.639 ^b
3 to 5 minimum wages	2 (2.4)	9 (10.8)	11 (13.3)	
< 5 minimum wages	2 (2.4)	3 (3.6)	5 (6.0)	

Source: Research data, 2017.

Caption: *The % in n (%) is the percentage in relation to the total population of the study.

^aPearson's Chi-Square Test bFisher's Exact Test

¹CNAE: Classificação Nacional de Atividades Econômicas (National Classification of Economic Activities)

As Table 2 shows, only statistically significant differences were found in some variables related to the characteristics of the clinical history of the people with breast cancer readmitted in clinical oncology. Those with statistical significance are highlighted: staging (p=0.037), performance status (p<0.001), comorbidities (p=0.019), arterial hypertension (p=0.015) and without comorbidities (p=0.10).

The possible influences on the outcome according to the aforementioned data are those that occur if the variables are analyzed separately, that is, without the interference of one another.

In the multivariate analysis, considering the covariate interactions and the outcome of the degree of complexity of the nursing care, some associations did not remain statistically significant (Table 3).

Table 2- Distribution of the characteristics of the clinical history and the cause of the hospital readmission in relation to the degree of complexity of the nursing care of people readmitted in clinical oncology (n=108). Rio de Janeiro - RJ, 2015

		Degree of complexity			
Variable	Minimal/ intermediate care	Semi-intensive/ intensive care	Total	P value	
	n (%)*	n (%)*	n (%)*		
Care level of the network where the	diagnosis of breast ca	ncer occurred			
Primary	10 (15.6)	23 (35.9)	33 (51.6)	0.0203	
Secondary and Tertiary	4 (6.3)	27 (42.2)	31 (48.4)	0.920ª	
Hospital readmission interval					
Up to 10 days after discharge	16 (14.8)	33 (30.6)	49 (45.4)	0.303ª	
Between 11 and 30 days after discharge	14 (13)	45 (41.7)	59 (54.6)		
Staging					
II	3 (2.9)	2 (1.9)	5 (4.8)	0.037 ^b	
III	10 (9.5)	17 (16.2)	27 (25.7)		
IV	15 (14.3)	58 (55.2)	73 (69.5)		
Readmission performance status					
P S ¹ - 1 and 2	13 (12)	8 (7.4)	21 (19.4)	<0.001a	
P S ¹ - 3 and 4	17 (15.7)	70 (64.8)	87 (80.6)		
Comorbidities					
Arterial hypertension	8 (7.4)	41 (38)	49 (45.4)	0.015ª	
Diabetes	4 (3.7)	8 (7.4)	12 (11.1)	0.734 ^b	
Hypothyroidism	1 (0.9)	6 (5.6)	7 (6.5)	0.671 ^b	
Congestive heart insufficiency	1 (0.9)	4 (3.7)	5 (4.6)	1.000 ^b	
Renal insufficiency	0 (0)	2 (1.9)	2 (1.9)	1.000 ^b	
Asthma	1 (0.9)	1 (0.9)	2 (1.9)	0.480 ^b	
No comorbidities	16 (14.8)	21 (19.4)	37 (34.3)	0.010a	
Other comorbidities ²	1 (0.9)	3 (2.8)	4 (3.7)	1.000 ^b	

Source: Research data, 2017.

Caption: *The % in n (%) is the percentage in relation to the total population of the study.

^aPearson's Chi–Square Test ^bFisher's Exact Test ¹PS: Performance status scale ²Falciform Trace, Vitiligo, Pyloric stenosis and Psychiatric disorder.

Table 3- Modeling of the binary logistic Regression of the possible variables associated to the degree of complexity of the nursing care of people with breast cancer readmitted in clinical oncology (n=108). Rio de Janeiro – RJ, 2015

Variable	n velve	Exp B (odds)	Confidence interval	
Variable	p-value		Inferior	Superior
Performance status	<0.001	0.122 ¹	0.048	0.424
Arterial hypertension	0.024	3.562 ²	1.245	10.658
No comorbidities	0.476	*	*	*
Staging	0.435	*	*	*
Schooling	0.844	*	*	*

Source: Research data, 2017.

Caption: * Variables were removed from the regression modeling during the execution by statistical insignificance.

The odds ratio is shown as a protection factor, indicating 88% less chance of the first category of PS (PS 1 and 2) to be classified in the last category of the degree of complexity of the nursing care (Semi-intensive and intensive care).

The odds ratio is shown as a risk factor, indicating a 56% chance of the first category of Hypertension (having hypertension) to be classified in the last category of the degree of complexity of the nursing care (Semi-intensive and intensive care).

In the multivariate model, only the PS (p <0.001) and the arterial hypertension (p=0.024) remained statistically associated with the degree of complexity of the nursing care. It can also be inferred that women with breast cancer readmitted in clinical oncology with PS 1 or 2 have 88% (odds = 0.122) less chance to be classified in the degree of complexity of semi-intensive and intensive care. This same group of women with arterial hypertension has 56% (odds=3.562) more chance to be classified in the semi-intensive and intensive nursing care.

DISCUSSION

The degrees of complexity that prevailed in the majority of the readmitted people were semi-intensive care (36.1%) and intensive care (36.1%), both with similar frequencies. This result is in line with the findings of a study performed at a university hospital in Porto Alegre, Rio Grande do Sul state⁽¹²⁾ in which 51.3% of the hospitalized patients were classified in semi-intensive care, 32% in intermediate care, and 14.4% in intensive care.

The number of hospitalizations per patient often demonstrates that they require assistance based on more complex care⁽⁷⁾. Therefore, it is possible to infer that people in situations of hospital readmission require more and/or more complex care.

It should be emphasized that the study setting is a hospitalization unit, and as in other publications, it was not expected to find a predominance of the semi-intensive and intensive care classifications, since this sector does not have readily available the human, material and technological resources necessary to this type of demand.

The low number of people classified as minimal care (7.4%) in the study in question instigates a reflection about the setting of the study and the change in the profile of the patients hospitalized in units of reference institutions for the treatment of chronic diseases⁽¹²⁾. The difficulty in obtaining a bed in the Intensive Care Unit (ICU) ends up demanding that people with worsening of their clinical conditions or in complex conditions remain in hospitalization units. As well as the predominance of people with advanced staging of the disease without therapeutic possibilities for cure, itcan also be one of the facilitating factors so that people with a degree of complexity of semi-intensive and intensive care remain in hospitalization units and are not referred to an institution or specialized sector in palliative care.

This profile of degree of complexity of the nursing care demands the need for a reassessment of the allocation of resources necessary to care for people with breast cancer readmitted in clinical oncology. The demand of this clien-

tele lacks specialized human, material and technological resources for semi-intensive and intensive care, indispensable conditions for continuous, safe and quality nursing care^(7,12).

The characterization of the degree of complexity of the nursing care from a SCP may interfere in the care management(13). It is able to facilitate the identification of the actual health needs of hospitalized people, assist in cost management, support the design and allocation of nursing human resources, as well as the material resources and inputs needed for the care process. These authors have also reported that this system has been used in a variety of ways at the international level, for example: In Sweden, the SCP designated as ZEBRA calculates the cost of the nursing staff per day instead of the standard fixed costs; in Finland, the RA-FAELA instrument has been used for several purposes, such as to measure the use and costs of nursing professionals in the care process, to assist in the decision making process for human resources allocation, to measure the workload associated with the care provided to the patient.

A study on the use of the SCP RAFAELA examining hospital mortality rates found that the hospital mortality rate increased when the nursing workload was above the ideal level, and also when there was a lack of personnel⁽¹⁴⁾. Given this, it can be said that the high degree of complexity can increase the level of overload of nursing professionals, negatively influence the quality of care and, consequently, increase the risk of mortality of the hospitalized people.

The results showed that there was also a difference in the degree of complexity of the nursing care in relation to staging (p=0.037) and the presence of stage IV (p=0.032) among people with breast cancer readmitted in clinical oncology.

The prognosis of the disease in cases of advanced staging is worse and its survival is lower⁽¹⁵⁾. The occurrence of difference in the degree of complexity according to the staging demonstrates that the stage of the disease can influence the degree of complexity of the nursing care of patients with breast cancer in hospital readmission. It is considered that the reduction of readmission cases can indicate quality of care, improve the quality of life of people and also reduce costs for health services. Therefore, it can be said that the identification of the hospitalized individuals' stages, the inclusion of this information and their peculiarities in the identification of problems related to their health-disease process may facilitate the elaboration of the care planning and, consequently, impact on the care provided to these individuals.

The classification of patients is a care management tool, subsidizing both the indirect care, resource forecasting, organization of the environment and systematization of activities, as well as the direct care aimed at care itself and the care provided to meet the needs of people's health.

The advance of the disease, the unfavorable prognosis and even the readmissions episodes due to complications should be managed with the goal of working around survival, providing these people with specialized care, comfort, quality of life, dignity and relief of their signs and symptoms as best as possible.

The results also showed the presence of difference in the degree of complexity of the nursing care according to the performance status (p<0.001), arterial hypertension (p=0.015), and the absence of comorbidities (p=0.010) of women with breast cancer readmitted in clinical oncology.

In the multivariate model, only the PS (p <0.001) and the arterial hypertension (p=0.024) remained statistically associated with the degree of complexity of the nursing care. This indicates that they are variables associated to the outcome, that is, they, independently, can indicate if the degree of complexity of the nursing care is higher or not.

Women with breast cancer readmitted in clinical oncology with PS 1 or 2 are more likely to be classified into minimal and intermediate care. As for those with arterial hypertension, they are more likely to require semi-intensive and intensive nursing care.

A study with women with advanced breast and gynecological cancer found that the performance status is a predictive variable for the survival of these women. The lower its functional capacity obtained by the performance status scale, the lower its survival⁽¹⁶⁾. Another study with people hospitalized in the ICU showed that the more serious and with lower chances of survival demanded a greater workload of the nursing team, that is, a higher degree of complexity of the nursing care⁽¹⁷⁾.

According to the Palliative Care Manual, the inpatient evaluation is essential for the surveillance of the evolutionary curve of the disease. This is able to support the decision-making, forecasting and diagnosis of terminality and one of the tools for this assessment is the performance status scale⁽¹⁸⁾.

The PS scale is extremely useful for planning the treatment and care of cancer patients. It can be applied daily in hospitalization units, emergencies and even outpatient consultations. Its application is simpler than the complete Perroca's SCP instrument⁽⁸⁾, being composed of only the indicator of clinical performance obtained by the answers of 5 scores.

The assessment of the functional capacity of the patient with breast cancer readmitted in the clinical oncology through the PS could allow, among others, to identify which people would demand a greater degree of complexity of nursing care. This would support a quick decision-making by the multiprofessional team regarding the resources to be allocated, mainly human resources.

However, the application of this scale in a unique way in nursing care does not allow the identification of the care needs of the clientele to be assisted. It does not inform the problems that people with cancer can have in all dimensions of health that the neoplasia affects, be they biological, psychosocial or spiritual. There is, therefore, a need to investigate other domains that would contemplate the establishment of comprehensive and humanized care for these clients.

The arterial hypertension (AH) can often be due to chemotherapy medications, which patients undergo and that cause cardiac toxicity. People on cancer treatment with cardiotoxic drugs, common medications in chemotherapy protocols for breast cancer, should be closely followed-up and monitored to prevent ventricular dysfunctions and cardiac insufficiencies, in addition to obtaining an early diagnosis of any abnormality⁽¹⁹⁾.

The AH was also verified in this study as an independent predictive variable for the degree of complexity of the nursing care. It should be highlighted that the Palliative Care Manual states that the decision-making process for all cancer patients at an advanced stage of the disease requires an individualized assessment based on their associated comorbidities⁽¹⁸⁾.

Female breast cancer survival decreases as the rate of comorbidity increases⁽¹⁵⁾. People with comorbidities greater than or equal to 2, according to the Charlson's scale used in the aforementioned study, were approximately 2 times more likely to die than those who did not.

The management of comorbidities combined with treatment for breast cancer is a challenge for the clinical practice. This may complicate the organization of care as it involves the implementation of interventions with objectives in more than one disease. The comprehensive care of the person with breast cancer involves both the neoplasia and all the elements present in their health-disease process. The control of comorbidities, their treatment and their implications in the course of the neoplastic disease can reduce the risk of morbidity and mortality, since it is a strong and important predictor for survival in breast cancer⁽²⁰⁾.

The identification of comorbidities and the inclusion of this information in the elaboration of the nursing care planning and in the discussions about the cases of people hospitalized by the multidisciplinary team can be a valuable tool for its management and to avoid avoidable complications.

During the hospital readmission, the individual continues to be the carrier of their underlying diseases, be it hypertension, diabetes, heart disease or depression, and therefore, they continue to need the therapies for these pathological conditions. Disregarding them may trigger decompensation of the clinical condition. Even in the reach of the resolution of the motive that justified their readmission associated with

the neoplasia, their pathological antecedents do not disappear, quite the contrary, they may require a more complex management and even increase the risk of death of these people due to conditions that are external to the cancer.

The clinical and psychosocial characteristics of people define their degree of complexity of nursing care. Through this, it is possible to identify the patients' demand for care in relation to the nursing team, to predict necessary resources, to stimulate the team's qualification so that it is able to approach the individual in its totality, understanding and providing a humanized and comprehensive care.

The overload index of nursing professionals has increased in recent years due to the increase of the demand without the proportional increase of human resources in quantity and quality adequate for a proper care⁽¹²⁾. In the last decades, the length of hospital stay has decreased, patients are discharged from hospital with higher levels of complexity, requiring greater care, knowledge and capacity for selfcare at home. The nursing team has had less time to prepare the discharge plans with the appropriate guidelines that could facilitate the continuity of care and even making links between points of the care network, so that the individual can be more easily monitored in primary care.

It is important that the person with breast cancer understands the importance and how to proceed with the therapies that should be continued at home after discharge. The recognition of warning signs so that the person seeks a health service specialized in oncology before the problem gets worse is of extreme relevance.

The nurse must conduct a step-care management within the nursing process that involves family and patient guidelines about: importance of continuing the administration of prescription drugs at home; continuity of the follow-up with general practitioner in primary care, cardiologist or endocrinologist in the presence of comorbidities; clarification regarding the possible complications that may arise during the first days of hospital discharge and the measures necessary for its management at home.

The decision-making, instrumented by the degree of complexity, is part of the care management, both in the indirect care and in the direct care. The oncological nurse who knows the singularities of the people she cares for has her work process based on the conditions, structures and resources indispensable to provide a safe and quality oncological nursing care.

CONCLUSION

The degree of complexity of breast cancer patients in hospital readmission up to 30 days in clinical oncology was

predominantly semi-intensive in 39 cases (36.1%), and intensive in the same amount as the previous one with 39 cases (36.1%). Followed by intermediate nursing care in 22 cases (20.4%), and 08 patients in minimal nursing care (7.4%). Even in hospital readmissions occurring in a hospitalization unit, the predominance was semi-intensive and intensive care.

Among the different socio-demographic and clinical variables, only the functional capacity (p<0.001) and personal history of arterial hypertension (p=0.024) were associated with the degree of nursing care complexity of people with breast cancer.

Knowing the degree of complexity of the nursing care required by a particular clientele can be a valuable tool in the performance of the care management to be provided, especially in the field of oncology.

The classification of the degree of complexity and the management of the care provided in cancer care facilitates compliance with the principles of the SUS and the Oncology Care Policy regarding the comprehensiveness. This implies the provision of comprehensive, continuous care, shared with patient, family and community and articulation in the different points of the health care network.

A safe and quality nursing care requires knowledge of its clientele and their demands, the health services that are part of it, as well as the resources and conditions that are indispensable for its quarantee.

The study had as a limitation the fact that the data were obtained by a secondary source of information. Two indicators of Perroca's SCP, emotional support and health education, presented a certain level of subjectivity. It is believed that if collected from an assessment face to face with the person hospitalized after anamnesis and physical examination, they could have their scores modified. However, despite this limitation, this is one of the few studies in Brazil addressing hospital readmission in oncology and relating the degree of complexity of the nursing care and the care management in oncology.

The deepening of this theme can increase the sensitivity of decision makers to the impact of the quality of care on the health process of the population, reducing costs for health services, helping reduce episodes of hospital readmissions, and facilitating the decentralization of cancer care to the different points of the health network.

■ REFERENCES

 Perroca MG, Jericó MA, Paschoal JV. Identificação de necessidades de cuidados dos pacientes com e sem uso de instrumento de classificação. Rev Esc Enferm USP. 2014;48(4):625-31.

- 2. Stewart BW, Wild CP (editors). World cancer report 2014. Lyon: IARC; 2014.
- 3. Oshiro ML, Bergmann A, Silva RG, Costa KC, Travaim IEB, Silva GBS, et al. Câncer de mama avançado como evento sentinela para avaliação do programa de detecção precoce do câncer de mama no centro-oeste do Brasil. Rev Bras Cancerol. 2014;60(1):15–23.
- 4. Haddad NC, Carvalho AC, Novaes CO. Perfil sociodemográfico e de saúde de mulheres submetidas à cirurgia para câncer de mama. Rev HUPE. 2015;14(supl. 1):28–35.
- 5. Merli APD, Lopes ES, Machareli CA. Reinternações no Hospital Estadual Bauru: ocorrência e possíveis causas. Saúde Coletiva Digital. 2013;1(1):26-30.
- 6. Gavankar C, Gross C, Lilenbaum R, Chagpar AB. Factors associated with unplanned breast cancer readmissions [Abstract]. J Clinic Oncol. 2013;(31 supl):131.
- 7. Magalhaes AM, Riboldi CO, Guzinski C, Silva RC, Moura GM. Grau de dependência de pacientes em unidade de internação cirúrgica. Rev Bras Enferm. 2015;68(5):824–9.
- 8. Perroca MG. Desenvolvimento e validação de conteúdo da nova versão de um instrumento para classificação de pacientes. Rev Latino-Am Enfermagem. 2011:19(1):[9 telas].
- West H, Jin JO. Performance status in patients with cancer. JAMA Oncology. 2015;1(7):998.
- 10. Giuliano AE, Connolly JL, Edge SB, Mittendorf EA, Rugo HS, Solin LJ, et al. Breast cancer: major changes in the American Joint Committe on Cancer eight edition cancer staging manual. CA Cancer J Clin. 2017;67(4):290–303.
- 11. Silva, LG. Grau de complexidade de cuidados de enfermagem em readmissão hospitalar na oncologia clínica de câncer de mama [dissertação]. Rio de Janeiro (RJ): Universidade Federal do Rio de Janeiro; 2016.

- 12. Silva KS, Echer IC, Magalhaes AM. Grau de dependência dos pacientes em relação à equipe de enfermagem: uma ferramenta de gestão. Esc Anna Nery. 2016;20(3):e20160060.
- 13. Abreu SP, Pompeo DA, Perroca MG. Utilização de instrumentos de classificação de pacientes: análise da produção do conhecimento brasileira. Rev Esc Enferm USP. 2014;48(6):1111-8.
- 14. Junttila JK, Koivu A, Fageström L, Haatainen K, Nykänen P. Hospital mortality and optimality of nursing workload: a study on the predictive validity of the RAFAELA Nursing Intensity and Staffing system. Int J Nurs Stud. 2016;60:46-53
- 15. Shi R, Taylor H, McLarty J, Liu L, Mills G, Burton G. Effects of payer status on breast cancer survival: a retrospective study. BMC Cancer. 2015;15:211.
- 16. Rugno FC. Avaliação da fase de transição para cuidados paliativos exclusivos em pacientes com cânceres de mama e ginecológico avançados [dissertação]. Barretos (SP): Hospital de Câncer de Barretos; 2013.
- 17. 17. Leite IR, Silva GR, Padilha KG. Nursing Activities score and demand of nursing work in intensive care. Acta Paul Enferm. 2015;25(6):837–43.
- 18. Academia Nacional de Cuidados Paliativos (BR). Manual de cuidados paliativos ANCP: ampliado e atualizado.Carvalho RT, Parsons HA (organizadores). 2 ed. Rio de Janeiro: ANCP; 2012.
- 19. Rocha RM, Schneider RS, Moreira I. Cardio-oncologia: onde estamos? Rev HUPE. 2013;12(Supl1):93-9.
- 20. Ferreira DB, Mattos IE. Tendência da mortalidade por câncer de mama em mulheres no estado do Rio de Janeiro, Brasil, 1996-2011. Ciênc Saúde Coletiva. 2015;20(3):895-903.

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