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FUGULIN PATIENT CLASSIFICATION SYSTEM: MEDICAL CLINIC ASSISTANCE PROFILE

SISTEMA DE CLASSIFICAÇÃO DE PACIENTES DE FUGULIN: PERFIL ASSISTENCIAL DA CLÍNICA MÉDICA

SISTEMA DE CLASIFICACIÓN DE PACIENTES DE FUGULIN: PERFIL ASISTENCIAL DE LA CLÍNICA MÉDICA

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ABSTRACT

Objective: to identify the patient's care profile from the Fugulin Patient Classification System. **Method:** descriptive, cross-sectional, quantitative approach. The instrument was applied during 60 consecutive days, 900 observations overall. For the calculation of the nursing team dimension, the Federal Nursing Council Resolution (FNCR) no. 293/2004 was used. **Results:** most patients required minimal care followed by intermediate care. The priority care was related to body care, ambulation, motility and eliminations. Regarding the distribution of the total number of nursing professionals, seven nurses and 13 technicians and/or auxiliaries are required, which is consistent with the FNCR. **Conclusion:** the classification of the degree of care dependency should be taken into account in the nursing team dimension of this unit with special attention to the daily scale of care. **Descriptors:** Nursing; Health Evaluation; Workload; Classification.

RESUMO

Objetivo: identificar o perfil assistencial dos pacientes a partir do Sistema de Classificação de Pacientes de Fugulin. **Método:** estudo descritivo, transversal, de abordagem quantitativa. O instrumento foi aplicado durante 60 dias consecutivos, totalizando em 900 observações. Para o cálculo do dimensionamento da equipe de enfermagem, foi utilizado a Resolução Conselho Federal de Enfermagem (COFEN) nº. 293/2004. **Resultados:** a maioria dos pacientes demandou de cuidados mínimos seguido do cuidado intermediário. Os cuidados prioritários foram referentes aos cuidados corporais, deambulação, motilidade e eliminações. Quanto à distribuição do total de profissionais de enfermagem é necessário sete enfermeiros e 13 técnicos e/ou auxiliares, que condiz com a Resolução do Cofen. **Conclusão:** a classificação do grau de dependência de cuidado deve ser levado em consideração no dimensionamento da equipe de enfermagem desta unidade com especial atenção para a escala diária de cuidados. **Descritores:** Enfermagem; Avaliação em Saúde; Carga de Trabalho; Classificação.

RESUMEN

Objetivo: identificar el perfil asistencial de los pacientes a partir del Sistema de Clasificación de Pacientes de Fugulín. **Método:** estudio descriptivo, transversal de abordaje cuantitativo. El instrumento se aplicó durante 60 días consecutivos, totalizando 900 observaciones. Para el cálculo de la dimensión del equipo de enfermería, se empleó la Resolución del Consejo Federal de Enfermería (COFEN) nº 293/2004. **Resultados:** la mayoría de los pacientes demandó cuidados mínimos tras el cuidado intermediario. Los cuidados prioritarios fueron los referentes a cuidados corporales, deambulación, motilidad y eliminaciones. Respecto a la distribución del total de profesionales de enfermería, son necesarios siete enfermeros y 13 técnicos o auxiliares según lo estipulado en la Resolución del Cofen. **Conclusión:** la clasificación del grado de dependencia de cuidado debe tenerse en cuenta en el dimensionamiento del equipo de enfermería de esta unidad, con especial atención a la escala diaria de cuidados. **Descriptores:** Enfermería; Evaluación de la Salud; Carga de Trabajo; Clasificación. **Descriptores:** Enfermería; Evaluación en Salud; Carga de Trabajo; Clasificación.

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INTRODUCTION

It is known that the Patient Classification System (PCS) has been used since the Florence Nightgale times, when the most severe patients were close to the nurses' desks, which allows the identification and classification of patients in care groups, or categories, and the quantification of these categories as a measure of the nursing efforts required.¹ Considering the different degrees of care complexity in hospitalization units, the adequacy of resources in a critical, reflexive and adherent way to reality generates an improvement in the quality of nursing care.²

It is perceived, then, that the provision of care is a very complex task because it is influenced by several factors such as human, material, financial and organizational resources. Thus, the efficient and effective management of patients' care tends to benefit the balance between nursing team size based not only on the number of patients who need care, but also on their level of care complexity.³ Thus, the use of classification systems enables the organization of care delivery and improvements in the management of services, as it stratifies the risk and classifies patients according to the priority of their clinical condition and the level of care.⁴

The benefits of adopting a PCS can reflect in the optimization of the allocation of professionals; documentation of patient needs; comparison between nursing activities in different hospital sectors; determination of nursing costs and distribution of investments in high quality health care.⁵

According to research carried out, the lack of use of patients classification system, as a management method in nursing, can generate an overload of work by the nursing team, compromising care practice, increasing morbidity and mortality rates of patients, time of hospitalization and, consequently, hospital costs. It may also influence the risk of emotional exhaustion, stress, job dissatisfaction and burnout of nursing professionals, with consequent effects on absenteeism and turnover rates.⁶

In this context, a management tool for high-quality care is the personnel dimensioning, understood as a systematic process that undergoes quantitative and qualitative personnel planning and evaluation, necessary to provide care, according to the uniqueness of the health services, to ensure users' and workers' safety.⁷

In our professional experience, we have witnessed the dissatisfaction of the nursing

team of the Medical Clinic of an Educational Hospital in Fortaleza, since it is common a 100% capacity in the unit, transference of intensive care patients who still needs complex care, great demand caused by residents and interns of health care courses and still patients in isolation are some of the reasons observed that potentially interfere in the quality of nursing care. Hence, it is necessary to adopt a system to classify the degree of dependence on care, so that patients receive adequate care without overloading the nursing team. However, unfortunately, no patient classification system is adopted as referential, however there is a huge desire of management, as if it could take time to fill in another form.

Thus, this study aimed to identify the patient's care profile from the Fugulin Patient Classification System.

METHOD

A descriptive, cross-sectional, quantitative study, conducted in March and April 2014, at the teaching hospital of the Ceará Federal University (CFU), Fortaleza, Brazil. The Medical Clinic unit contains 28 beds, which serves patients of different medical specialties.

The subjects of the study were patients admitted to the institution's medical clinic during the data collection period, aged 18 years or over, regardless of the medical diagnosis and type of treatment. It is important to note that, on a daily basis, the total number of hospitalized patients was evaluated, regardless of whether the same patient had already been observed in previous days.

For data collection, the instrument Fugulin Patient Rating System was used⁸ with the objective of evaluating the patient care complexity. It consists of nine areas of care: mental state, oxygenation, vital signs, feeding, motility, ambulation, body care, elimination, therapeutics. Each variable receives a score of one to four points and the sum of these points can vary from 12 to 48, increasing the complexity of the patient's care, which corresponds to: minimal care (12 to 17 points), intermediate care (18 to 22 points); high-dependency (23 to 28 points); semi-intensive care (29-34 points) and intensive care (34-48 points).

For the calculation of the nursing team dimension, the Federal Nursing Council Resolution (FNCR) no. 293/20049 was used⁹, which mentions the nursing staff calculation methodology (5): number of staff (NS) is the number of nursing professionals required in

the hospitalization unit, based on the Patient Classification System (PCS) and Occupancy Rate (OR); Total Hours of Nursing (THN) is the sum of the hours needed to assist clients with minimum, intermediate, semi-intensive and intensive care demands; Marinho Constant (KM) means the coefficient deducted as a function of Days of the Week (DW), of the Weekly Working Day (WWD), which assumes the values of 40 hours in the assistance units. And the Technical Security Index (TSI) is composed of two key plots, the absenteeism rate (planned, that is, for vacation coverage, maternity leave etc) and the absenteeism rate (unplanned, or coverage for absences / absences, for various reasons). Using the TSI coefficient equal to 1.15 (15%), and replacing WWD with its assumed values of 40 hours, the KM will have the respective value of: $KM(40) = 0.12012$.

The data obtained were analyzed in the statistical program Statistical Package for Social Science (SPSS) version 2.0 for Windows, and the results were presented with absolute and relative frequencies in tables.

The project was approved by the Research Ethics Committee (Opinion no. 876/2008) with

exemption from the signing of the Informed Consent Term (TCLE), since the evaluation of the demands of care with the patient is considered a daily activity of the Nurse and the patients were not submitted to any other procedure, depending on the application of the instrument.

RESULTS

The instrument was applied during 60 consecutive days in a Clinical Medical Unit, totaling in 900 observations. It should be noted that the number of observations does not correspond to the total number of patients, since the same patient may have been classified more than once according to the length of stay in the Unit.

Table 1 shows the data referring to the degree of complexity of the patients by area of care, obtained by applying the Fugulin PCS (1994). The total values to the right of the table were obtained by summing the number of instruments of each degree of complexity in each of the care areas that are organized in rows.

Table 1. Simple frequency and patients percentage of the medical clinic, according to the complexity of the area of care. Fortaleza (CE), Brazil, 2014.

Area of care	Intensive care		High-dependency care		Intermediate care		Minimum care		Total
	no.	%	no.	%	no.	%	no.	%	
Mental state	29	3,2	19	2,1	49	5,4	803	89,2	900
Oxygenation	24	2,7	76	8,4	26	2,9	774	86	900
Vital signs	7	0,6	237	26,4	98	10,9	558	62,1	900
Feeding	12	1,3	98	10,9	76	8,5	714	79,3	900
Motility	70	7,8	30	3,3	64	7,1	736	81,8	900
Ambulation	132	14,7	33	3,7	95	10,6	640	71,1	900
Body care	141	15,7	11	1,2	133	14,8	615	68,3	900
Elimination	89	9,9	96	10,7	48	5,3	667	74,1	900
Therapeutics	7	0,8	186	20,7	328	36,4	379	42,1	900

According to table 1, patients in the medical clinic are predominantly characterized as time and space oriented (89.2%), non-oxygen dependent (86%), with vital signs controls at regular intervals of routine (8 (81.1%), ambulant (71.1%), self-sufficient in food (79.3%), self-sufficient in body care (68.3%), self-sufficiency in elimination (74.1%). In addition, almost all patients (78.5%) had some type of continuous intravenous and/or intramuscular/oral therapy. It was noticed that the clientele under study demand, as a priority, the following care: walking, restricted in bed 132

(14.7%) and needing assistance to wander 95 (10.6%) and body care with clients who require bathing in the bed of 141 (15.7%) and bathing in the bath 133 (14.8%), which require more attention, time and work of the nursing team.

The areas of body care and ambulation are closely related. Thus, the absolute majority of the patients 141 (15.7%) receive bath in the bed because it is restricted to it, either by the basic pathology that requires limitation of physical efforts or the motor incapacity of locomotion.

Table 2. Simple frequency and percentage of the categories of care provided, according to the Fugulin Scale in a medical clinic in a university hospital (n=900). Fortaleza (CE), Brazil, 2014.

Care classification	no.	%
Intensive care (more than 31 points)	17	1,9
Semi-intensive care (27 to 31 points)	40	4,4
High-dependency care (21 to 26 points)	71	7,9
Intermediate care (15 to 20 points)	90	10
Minimun care (9 to 14 points)	682	75,8
Total	900	100

Most patients in the medical clinic require minimal care (81.9% - 737) followed by intermediate care (8.1% - 73) (Table 2).

The Weekly Working Day (WWD) considered for the institution under study is 40 hours. The Technical Security Index (TSI) considered to be in line with the need and reality of the hospital, based on surveys, is 1.30 (30%). In order to calculate the Occupancy Rate (OR) of the unit of clinical medical admission, it was considered the month of March, 2014. This

information was obtained in the hospital's hospitalization department. The Marinho Constant (KM) defined for the medical clinic of the UH was 0.2625.

For the calculation of nursing hours, the category high-dependency on semi-intensive care was added, as it was not contemplated in FNCR Resolution No. 293/2004, which supported this study. Thus, the calculation of the degree of dependency of the patients and the size of the staff are arranged in Table 3:

Table 3. Calculation of nursing hours and number of professionals need in a medical clinic of a university hospital. Fortaleza (CE), Brazil, 2014.

Calculation	Formula	Calculation
Nursing hours ¹	[(PCMx3,8)+(PCIx5,6)+(PCSIx9,4)+(PCItx17,9)]	[11,4 x 3,8)+(1,5 x 5,6)+(1,8 x 9,4)+(0,3 x 17,9)]. Nursing hours in the Medical Clinic = 74 hours.
Dimention of the staff	Table of staff = KM x Nursing hours	0,2625 x 74, resulting in 19,42 professionals

Source: FNCR (2004).

The workforce expected to work at the medical clinic should be composed of nursing workers. Regarding the percentage distribution of the total number of nursing professionals, in line with FNCR Resolution No. 293/2004, the highest prevalence category (minimum care) was adopted. It is necessary, then, seven nurses and 13 nursing technicians, in compliance with the percentage of 33% to 37% of nurses on the total number of nursing workers recommended by the referred Resolution (FNCR, 2004). The number of employees in the industry is three nurses in the morning, two in the afternoon and two in the evening. As for the auxiliaries and technicians the quantitative one is of six during the daytime period and six nocturnal.

DISCUSSION

The need to classify the degree of patient dependence has become a priority because, with these data, it is possible to predict aspects related to the care process, as well as to ensure the adequate dimensioning of nursing professionals needed to provide care to patients.¹⁰ A patient classification system aims to equalize the relationship between demand (patient) and supply of care (nursing workers), so that care is provided according to

the needs of the patient, without causing overwork to the worker¹¹.

Thus, the average nursing care time, according to the type of care, is an objective measure for the evaluation and monitoring of the quantitative and qualitative of the nursing professionals of the hospitalization units of hospital institutions, since it makes it possible to evaluate the condition, the quality and safety of nursing care offered¹².

In São Paulo - Brazil, a study that aimed to identify the care profile of patients from the Hospitalization Units of the University Hospital of the São Paulo University (UH-SPU) evidenced that the largest number of patients in the Medical Clinic was classified as minimal care, followed by patients who needed high-dependency nursing care and intermediate care. However, similar to the findings of this study, we identified the permanence of patients admitted to the medical clinic who needed intensive care. This situation, according to the nurses of the Medical Clinic of UH-SPU causes emotional and physical exhaustion due to the awareness of the impossibility of adequately attending patients with such assistance complexity¹.

The problem that arises when there is a need to attend intensive care patients in medical clinic units is the fact that, often, these units do not have physical, material or human resources to assist patients with this profile. However, in the routine of professional practice, the nursing team is obliged to provide assistance to severe and dependent patients outside intensive care units, because the number of ICU beds is insufficient for the demand¹³.

These patients need more attention on the part of the nursing team, since they are constantly submitted to various procedures such as medication administration, airway aspiration, dressing, among others. Many of these procedures require a longer time of care, requiring the nurse to take more care. This situation eventually interferes with the planning of the number of professionals needed to meet the needs of the patients in that unit¹³.

In health institutions, and especially in hospitals, the nursing service plays a fundamental role in the care process. In the attempt to solve the problem of calculating hours of nursing care, the so-called patient classification system has been introduced, which allows to consider the severity of the hospitalized patient in the calculation of nursing personnel for the sector.

In this study, the number of employees, scaled according to what is recommended by the specific legislation, is six nurses and/or nursing technicians and two nurses per shift. However, in the morning there are three nurses, according to the classification of dependency by the instrument of Fugulin, which is recognized and approved by FNCR, by Resolution No. 293/04¹⁴.

It is necessary, rather, that the patient should be classified in their degree of dependency, collaborating for an excellent planning of the nursing care, dimensioning of human and material resources, planning of the nursing assistance, forecast of the costs of the assistance and better distribution of activities among the members of the nursing team. The inadequate dimensioning of human resources in nursing has implications on the results obtained by nursing care, because the quantitative and qualitative aspects of personnel are directly related to the quality of care provided to the patient, which in this situation may favor the related infection index to health care.

It is worth noting that the adoption of a Patient Classification System (PCS) enables nursing to become more knowledgeable about its clientele, as well as to develop the skills

and competencies of professionals to assure assistance and management in a safer, Innovative, autonomous and participatory.¹⁵

CONCLUSION

The result of the daily classification of hospitalized patients, according to the complexity of care, showed that the largest number of patients assisted in this unit was classified as minimal care, followed by patients of intermediate care and high-dependency of nursing.

It was also identified that the items with the most compromised score were body care, ambulation, motility and eliminations. Such verification indicates an increase in the work of the nursing team, including the transfer of the patient from the bed to the armchair, body hygiene, diaper change, among others. This aspect should be taken into account in the dimensioning of the nursing team of this unit, with special attention to the daily scale of care.

It is also important to emphasize the importance of nurses' qualification to correctly and effectively classify patients with patient data and their dependency on care, since knowledge of this profile allows for better planning of care and implementation of interventions that better meet the needs of these patients, which facilitates the dimensioning of nursing staff.

The limitation of the study is the lack of information on the epidemiological profile of hospitalized patients, since the data were collected directly from the instruments filled by the nurses of the medical clinic unit. Thus, it is suggested to carry out other studies that allow the correlation of the clinical-epidemiological profile, length of hospitalization and classification of the degree of care of the patients.

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