

CUIDADO É FUNDAMENTAL

UNIVERSIDADE FEDERAL DO ESTADO DO RIO DE JANEIRO • ESCOLA DE ENFERMAGEM ALFREDO PINTO

RESEARCH

DOI: 10.9789/2175-5361.2019.v11i4.1011-1016

Basic human needs in intensive care

Necessidades humanas básicas em terapia intensiva

Necesidades humanas básicas en terapia intensiva

Priscilla Tereza Lopes de Souza¹; Jocelly de Araújo Ferreira²; Elizandra Cassia Silva de Oliveira³; Nayda Babel Alves de Lima⁴; Juliana da Rocha Cabral⁵; Regina Célia de Oliveira⁶

How to cite this article:

Souza PTL, Ferreira JA, Oliveira ECS, Lima NBA, Cabral JR, Oliveira RC. Basic human needs in intensive care. *RevFunCareOnline*.2019jul/set;11(4):1011-1016.DOI:<http://dx.doi.org/10.9789/2175-5361.2019.v11i4.1011-1016>.

ABSTRACT

Objective: The study's purpose has been to scrutinize the knowledge of the nursing team with regards to the basic human needs of critically ill patients in an Intensive Care Unit by taking into consideration the Wanda de Aguiar Horta's basic human needs theory. **Methods:** It is a descriptive-exploratory study with a quantitative approach. Sample of 100 nursing professionals in an adult Intensive Care Unit. **Results:** There was a predominance of psychobiological aspects: body care (11.7%), oxygenation and nutrition (11.6%); and low prevalence of psychosocial aspects. Interaction with the multiprofessional team (25.2%), professional initiative (19.50%) and availability of compatible human resources (16.72%) favor the perception of the basic human needs of the patient; while stress (23.74%), quantitative of patients to a registered nurse/nurse technician (22.57%) and staff turnover (14.01%) make it difficult. **Conclusion:** The nursing team knows the basic human needs of the critical patient, centered on psychobiological aspects with detachment of social and religious aspects in the practice of care.

Descriptors: Intensive care, nursing, humanization, healthcare quality.

RESUMO

Objetivo: Analisar o conhecimento da equipe de enfermagem acerca das necessidades humanas básicas dos pacientes críticos internos na Unidade de Terapia Intensiva (UTI) sob a luz da teoria das necessidades humanas básicas de Wanda de Aguiar Horta. **Métodos:** Estudo exploratório, descritivo, com abordagem quantitativa. Amostra de cem profissionais de enfermagem em terapia intensiva adulto. **Resultados:** Predominância dos aspectos psicobiológico: cuidado corporal (11,7%), oxigenação e nutrição (11,6%) e baixo predomínio

- 1 Nursing Graduate by the Universidade Federal de Campina Grande (UFCG), Specialist's Degree in Intensive Care by the UPE, Specialist's Degree in Hospital Management by the Universidade Internacional (Uninter), Nursing Coordinator at Hospital do Tricentenário – Hospital Regional Emília Câmara.
- 2 MSc by the UFRN, PhD student by the Universidade Federal de Minas Gerais (UFMG), Professor of the Nursing Graduation Course at UFCG.
- 3 Nursing Graduate by the Universidade Federal de Pernambuco (UFPE), MSc by the Universidade de Pernambuco (UPE), PhD student by the UPE, Professor at UPE.
- 4 Nursing Graduate by the UFCG, Student by the Maternal-Child Multiprofessional Residency Program at Universidade Federal do Rio Grande do Norte (UFRN).
- 5 Nursing Graduate by the UFPE, Specialist's Degree in Infectology, MSc student enrolled in the Nursing Postgraduate Associated Program at UPE/UEPB.
- 6 Nursing Graduate by the UFPE, MSc by the UPE, PhD student by the UPE, Professor at UPE.

DOI: 10.9789/2175-5361.2019.v11i4.1011-1016 | Souza PTL, Ferreira JA, Oliveira ECS, et al. | Basic human needs in intensive care

dos aspectos psicossociais. A interação com a equipe multiprofissional (25,2%), a iniciativa do profissional (19,50%) e a disponibilidade de recursos humanos compatíveis (16,72%) favorecem a percepção das necessidades humanas básicas do paciente, enquanto estresse (23,74%), quantitativo de paciente para um enfermeiro/técnico (22,57%) e rotatividade da equipe (14,01%) dificultam. **Conclusão:** A equipe de enfermagem conhece as necessidades humanas básicas do paciente crítico, centralizada nos aspectos psicobiológicos com distanciamento dos aspectos sociais e religiosos na prática assistencial.

Descritores: Terapia Intensiva; Enfermagem; Humanização; Qualidade da Assistência à Saúde.

RESUMEM

Objetivo: Analizar el conocimiento del equipo de enfermería acerca de las necesidades humanas básicas de los pacientes críticos internos en la Unidad de Terapia Intensiva bajo la luz de la teoría de las necesidades humanas básicas de Wanda de Aguiar Horta. **Métodos:** Estudio exploratorio, descriptivo, con abordaje cuantitativo. Muestra de 100 profesionales de enfermería en terapia intensiva adulto. **Resultado:** Predominancia de los aspectos psicobiológico: cuidado corporal (11,7%), oxigenación y nutrición (11,6%); bajo predominio de los aspectos psicossociales. La interacción con el equipo multiprofesional (25,2%), iniciativa del profesional (19,50%) y disponibilidad de recursos humanos compatibles (16,72%) favorece la percepción de las necesidades humanas básicas del paciente, mientras que el estrés (23, El 74%), cuantitativo de paciente para un enfermero / técnico (22,57%) y la rotatividad del equipo (14,01%) dificultan. **Conclusión:** El equipo de enfermería conoce las necesidades humanas básicas del paciente crítico, centralizado en los aspectos psicobiológicos con distanciamiento de los aspectos sociales y religiosos en la práctica asistencial.

Descriptor: Terapia Intensiva; Enfermería; Humanización; Calidad de la Asistencia Sanitaria.

INTRODUCTION

The Intensive Care Unit (ICU) place is distinguished because it is a complex space that fully assists patients in a critical but recoverable situation. This environment has an adequate physical structure, specialized human resources, and a high technological development. This scenario with machine predominance and overvaluation of the objective data that it registers, consequently there is often deprecation of the procedures related to the direct care to the users and of the subjectivity implied in the human relations.¹

Therefore, the relationship of being cared for and cared for can be considered as supplementary, dispensable or even absent. Leading to a reductionist analysis of the dimensions of nursing care that ends up simplifying the practices of caring in ICUs.²

It is understood that in the daily practice of ICU care it is necessary to listen, touch and sensitivity that culminate in the true existential dimension of each patient. Thus, in these units, the impersonality, insensitivity, automation, mechanization, and dehumanization of care.³

It should be noticed that the organicist/reductionist model of current medicine is strongly focused on the healing of the biological body, favoring the disease and not the sick person. Currently contributing to the training of health professionals who do not value care related to the health-disease binomial, in which the psychic and physical aspects are inseparable for the restoration of the physiological balance.⁴

From the need for further reflection on this paradoxical context between the subjective and the objective; the Basic Human Needs (BHN) theory of Wanda de Aguiar Horta based on the Human Motivation theory proposed by Maslow, values these human needs in any hospital context. From its assumptions, this theory allows us to approach between nurses and patients in the perception of an integral care of the critically ill patient, considering it as a biopsychosocial and spiritual being.^{5,6}

Bearing in mind our experience as registered nurses in the intensive care setting, and concerned with the quality and humanization of nursing care, we felt the need to analyze the knowledge of the nursing team with regards to the basic human needs of critically ill patients in an Intensive Care Unit by taking into consideration the Wanda de Aguiar Horta's basic human needs theory.

METHODS

It is a descriptive study with a quantitative approach, which was carried out in three adult ICUs from a large public hospital in Recife city, Pernambuco State, which is a referral hospital in the specialties of orthopedic trauma, general surgery, peripheral vascular surgery, neurosurgery, neurology, and also oral and maxillofacial surgery.

Considering the eligibility criteria, the following professionals have been included: registered nurses and nurse technicians who performed direct assistance activities to the patient and were part of the nursing team of the ICUs from the hospital under study. A sample consisting of 100 professionals of the nursing team guided by the technique of non-probabilistic sampling for convenience.

Data collection was performed over the period from August to December 2015, using a semi-structured instrument, containing data from the demographic characterization of the team and identification of the basic human needs according to the psychobiological, psychosocial and psycho-spiritual characteristics.

Data were analyzed using descriptive statistics techniques, as follows: absolute and percentage frequencies. The program used to enter the data and to obtain the statistical calculations was the SPSS (Statistical Package for the Social Sciences) in version 17.

The study complied with the Resolution No. 466/2012 from the National Health Council, and was submitted to the Research Ethics Committee from the *Hospital da Restauração*, being then approved under the *Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appreciation] No. 43499215.4.0000.5198.

RESULTS

In the distribution of the interviewees regarding the socio-demographic characterization, 68 registered nurses (68%), female gender (80%) and age from 29 to 38 years old (41%) predominated. Concerning the work regime, 79 (79%) of the participants performed their activities from 21 to 30 hours per week, with a training course in ICU 37 (37%) and the time working in the ICU between 2 and 10 years (43%).

Table 1 shows that 100 (100%) of nursing professionals acknowledge that BHNs are important needs within the ICU, being justified by the nursing team: needing the Nursing to be met 71 (34.47%); Patients cannot achieve them alone (32.52%), there is no companion to help in the care procedure (16.99%) and they need equipment to be done 33 (16.02%).

Table 1 - Absolute distribution and percentage of the nursing team, according to the importance and justifications of the Human Needs of ICU patients, Recife city, Pernambuco State, 2015. (n=100).

Variable	yes	%
	n	100
*BHN are important in Intensive Care	100	
Total group	100	
Reasons for having the *BHN in Intensive Care		
There is a need of the nursing to achieving them	71	34.47
The patient cannot achieve them alone	67	32.52
There is no companion to help in the care procedure	35	16.99
They need equipment to be done	33	16.02
Total group	206	100

*BHN - Basic Human Needs.

Note: more than one item could be indicated in the reason item.

When asked to identify the BHNs most perceived by the nursing team while providing care to the critical ICU patient; the prevalence of body care 79 (11.7%), followed by nutrition and oxygenation 78 (11.6%) and sleep and rest 66 (9.8%) were observed in **Table 2**. While labor 8 (1.2%) and gregarious 10 (1.5%) obtained the lowest percentages.

Table 2 - Absolute distribution and percentage of the Basic Human Needs perceived by the employees while providing care to the critical ICU patient, Recife city, Pernambuco State, 2015. (n=100).

Variable	Category	n	%
Psychosocial NBH	Communication	45	6.7%
	Gregarious	10	1.5%
	Attention	48	7.1%
	Freedom	16	2.4%
	Labor	8	1.2%
Psychobiological NBH	Nutrition	78	11.6%
	Oxygenation	78	11.6%
	Thermal regulation	55	8.2%
	Elimination	42	6.2%
	Sleep and rest	66	9.8%
	Locomotion	25	3.7%
	Body care	79	11.7%
	Sexuality	14	2.1%
Psycho-spiritual NBH	Shelter	13	1.9%
	Privacy	56	8.3%
	Exercise and physical activity	22	3.3%
	Religion	18	2.7%
Total		673	100.0

*BHN - Basic Human Needs.

Note: more than one item could be indicated.

In order to identify the BHNs of the patients by the nursing team during their care to the critical ICU patient, the factors facilitating this identification during ICU care were: interaction with the multiprofessional team 75 (23.22%), initiative of the professional 63 (19.50%) and availability of human resources 54 (16.72%).

Nevertheless, there are also barriers that make it difficult to identify patients' BHNs while providing the care procedures in an ICU. The participants of the research pointed relevance to stress 61 (23.74%), quantitative of patients to a registered nurse/nurse technician 61 (22.57%) and the staff turnover 36 (14.01%).

DISCUSSION

The results of our study present a profile of professionals similar to other contexts of nursing care, in which the feminization in the profession is observed, a prevalence of nursing technicians in relation to the other components of the team and predominance of the population with young age developing activities in ICU.^{7,8}

Regarding the qualification and time of professional experience, this data shows that the contemporary labor market demands a greater scientific technical preparation in units of high complexity. The ICU is a unit that concentrates specialized professionals, a variety of sophisticated and high-cost technological resources; due to such characteristics, the team in this sector differs from other hospital admission sectors. These professionals should have specialized knowledge and skills in addition to those acquired during the graduation period.⁹

Nonetheless, due to the stress and dynamics of the sector, some professionals opt for the exit of the sector and when they reach a longer period of training they opt for administrative areas or teaching.¹⁰ Corroborating for a working period between 2 and 10 years in our study.

Faced with the relationship so close to technology and the need for specialization; the BHN were identified as important by all of the nursing team in our study. Characterizing the image of dehumanization attributed to the ICU.

BHNs are characterized as common to all individuals, varying in the way they are met, expressed or satisfied. They are fundamental to the maintenance and promotion of health.³ Despite the recognition of importance, everyday practice can be a praxis to humanized care, since the positivist technical care still prevails in the ICU, in other words, it concentrates on high technology, with the purpose of satisfying the patient's biological needs.¹

Based on the theoretical reference of Horta, it is understood that any need of the human being, from the physiological ones to the personal fulfillment is denominated as basic. But with the critical patient, these premises acquire a differentiated meaning. This patient will hardly achieve his personal satisfaction alone, requiring in turn other personal or material resources

to do so. Endorsing the justifications presented in our study for the importance and justifications of the BHNs.⁴

It is also perceived that to experience a hospitalization in critical environment generates discomfort, isolation and the loss of privacy. At that moment, the patient has his autonomy lost, since he has no capacity for choice, decision, and expression. With the principle of autonomy without being exercised, the patient is at the mercy of professionals in the industry, placing trust and his life in the hands of these. Configuring the need for care that characterizes the integrality that reaches every dimension of the human being.^{11,12}

To Horta, "Supporting in Nursing is to do for the human being what he cannot do for himself". As well as helping or assisting when partially unable to self-care. The concept of needs used by Horta influences generations of Brazilian nurses. Nowadays, in Nursing teaching and practice it is probably the most referenced.¹³

Considering the BHN perceived by the nursing team, it is observed the predominance in the psychobiological aspects centered on the body care, nutrition, and oxygenation. Such evidence seems to indicate that as to bodily care; probably this is due to the origin of nursing, which focused on the corporal and environmental hygiene as salutary measures, a principle well rooted in the formation of this profession. In addition to that bathing in the bed has been a routine activity in severe patients. It is a strong indicator of dependence and necessity human.^{3,14}

Concerning the nutrition and oxygenation; one can observe the connection to equipment frequently used in ICUs, which are respectively the infusion pump for diet and the mechanical ventilator. These devices are instruments that contribute to the care.¹

However, feeding itself is a basic human need, where nutrients supplying energy and constituent materials are essential for the growth and development of living things.¹⁵ The caloric intake is a proactive strategy that helps reduce damage from hospitalization, complications and ICU time, thus minimizing hospital costs.

Therefore, nursing plays a fundamental role in the success of this therapy, being responsible for the gastrointestinal access, maintenance, administration and response of the diet. Nursing care planning should be individualized and when physical, psychosocial and spiritual aspects are analyzed, they contribute to the prevention of complications and treatment success.¹⁵

Observing the oxygenation, mechanical ventilation is perceived as one of the most important life supports used in ICU, totally or partially replacing the ventilatory activity of the patient. This care for the patient in ventilation runs through a holistic care where the negative psychological effects are predominant: especially delirium, memories of invasive and traumatic procedures, pain and stress.¹⁶ Studies address the lack of communication between the patient and the team as a negative barrier to the patient's well-being and therapeutic success.^{16,17}

As needs less perceived by the team of our study these are related in the social aspect. Studies have also verified that these aspects are little valued by the nursing team.^{1,14} The social needs involve several BHN that are affected at the time of hospitalization, we can include the following: self-esteem, self-image, attention, acceptance, gregariousness, recreation and leisure.¹⁴

Hence, work overload and stress are closely related within critical hospital sectors, which may generate an excessive appreciation of psychobiological needs, to the detriment of others. As also the omission of nursing care may be related to the absence/deficiency of the organization and planning of care, management and scientific demands.^{14,18}

This reflection leads us to value the assistance focused on the health-disease binomial, in which the psychic and physical aspects are inseparable. In clinical practice, ICU professionals presented difficulties in establishing a clear and objective definition for the concept of humanization.¹

In the context of the ICU we observe the organization of work based on the execution of the task and the distance between team and patients. Making the cares technical and mechanical, devoid of feeling. Performing the technique, cleaning, maintaining order in the unit procedures that are strongly rooted in this scenario, often forgetting the social and spiritual aspects of the patient.²

As factors that favor the identification of BHNs, the multiprofessional interaction is relevant and provides the necessary support to severely compromised patients. It is observed the presence of nutritionists, psychologists, speech therapists, pharmacists, social workers, among others, as support staff, but with equal importance for integral and quality assistance. In order to guarantee the safety and reduction of suffering of the client and his/her relatives, the collaborative practice between the different health professionals with different professional experiences promotes the highest quality of care.¹⁹

Given this aforementioned context, strategies for daily visits to patients with all staff have been essential for the identification of individualized care and a greater possibility of BHN recognition, as well as conversations between the team and the internal management for greater cooperation, commitment, to professional and personal training.¹⁹

Considering the participation of the professional's own initiative, it was also found in studies that in meeting basic human needs, nursing tries to rescue the principle of otherness, although unconsciously, but adopting measures that contemplate the clients' expectations.³ Thus, many times as they would like them to act with themselves and ensure the promotion of humanized health in the rescue of beliefs, values, and particularities of critical patient care.

Henceforward, the quantity of nursing professionals favors the recognition of the BHN being available for the daily service demand that is usually intense in the ICU.

The excess workload can trigger a mechanical nursing assistance with only compliance with norms and routines; to expose patients, employees and the institution itself to care that represents a safety risk.²⁰

We emphasize that the *Resolução da Diretoria Colegiada (RDC)* [Collegiate Board of Directors] No. 26 provides that nursing hours per bed should be considered every 24 hours. Article 14 specifies that there should be at least one nurse for every ten beds or fraction in each shift and at least one nursing technician for every two beds at each shift.²¹ Inactivating a nursing care that can hear, touch or talk with patients to the detriment of continuous monitoring and frequent evaluation of clinical and laboratory parameters, as well as other aspects pertinent to serious customer care.

On the other hand, the factors that hinder the perception of BHN, studies also reveal a great association of stress, insufficient quantitative of professionals and rotation of the team as factors that distract humanization in ICU, of which the recognition of BHN is entirely related.^{1,2,20}

The ICU is a sector that is known to generate physical and mental stress, which makes it ironic not to take care of the one who cares for the other. Especially in the nursing team is observed the excess of bureaucratic services, insufficient contracting of professionals required for the service, low valorization of wages, lack of material resources and continuous education by the team.

It is still perceived that in the ICU, the team coexists with stress-triggering factors, such as the difficulty of accepting death, conflicting decisions related to the admission of the patients that will be attended, and the contact with the relatives who request information on the clinical picture of the patient. A routine that generates stress and conflict, which can then encourage frequent turnover of the team.^{2,22}

FINAL CONSIDERATIONS

Nursing theories are considered epistemological contributions fundamental to the construction of knowledge and professional practice. They drive the nursing clinical model and enable professionals to describe the aspects of the care reality, aiding the development of the triad theory, research and practice.

The nursing team is aware of the basic human needs of the critical patient, centralized in the psychobiological aspects with the detriment of the social and religious aspects. They are perceived by the interaction with the multiprofessional team, professional initiative, and availability of human resources; while the stress, quantitative of patients to a registered nurse/nurse technician and staff turnover make perception difficult.

Although the ICU is a space of high complexity of care and technology developed, the essence of nursing care to the critical patient remains the essence of the human being.

As a study limitation, we see that a quantitative research does not cover the entire dimension of the BHN of critically ill patients in an ICU, as expressed by the nursing team. Therefore, it becomes relevant a qualitative study associated with the issues of higher incidence.

REFERENCES

1. Sanches RCN, Gerhardt PC, Rêgo AS, Carreira L, Pupulim JSL, Radovanovic CAT. *Percepções de profissionais de saúde sobre a humanização em unidade de terapia intensiva adulto*. Esc Anna Nery. 2016;20(1):48-54.
2. Farias FBB, Vidal LL, Farias RAR, Jesus ACP. *Cuidado humanizado em UTI: desafios na visão dos profissionais de saúde*. J. Res.: fundam. care. Online. 2013;5(4):635-42.
3. Pupulim JSL, Sawada NO. *Exposição corporal do cliente no atendimento das necessidades básicas em UTI: incidentes críticos relatados por enfermeiras* Rev. Latino-am Enfermagem.2005; 13(3):388-96.
4. Souza PTL et al. *Necessidades especiais no centro de terapia intensiva: fatores agravantes e atenuantes*. Revista de Enfermagem UFPE on line.2015;9(7):9069-77.
5. Tannure MC, Chianca TCM, Bedran T, Werli A, Andrade CR. *Validação de instrumentos de coleta de dados de enfermagem em unidade de tratamento intensivo de adultos*. remE - Rev. Min. Enferm.2008;12(3):370-80.
6. Bordinhão RC, Almeida MA. *Instrumento de coleta de dados para pacientes críticos fundamentado no modelo das necessidades humanas básicas de horta*. Rev. Gaúcha Enferm.2012;33(2):125-31.
7. Ribeiro AC, Ramos LHD, Mandú ENT. *Perfil sociodemográfico e profissional de enfermeiros de um hospital público de Cuiabá - MT*. Ciência, Cuidado e Saúde. 2014;13(4):625-33.
8. Dias JD, Mekaro KS, Tibes CMS, Zem-Mascarenhas SH. *Compreensão de enfermeiros sobre segurança do paciente e erros de medicação*. Rev. Min Enferm. 2014; 18(4): 866-73.
9. Araujo Neto JD, Silva ISP, Zanin LE, Andrade AP, Moraes KM. *Profissionais de saúde da unidade de terapia intensiva: percepção dos fatores restritivos da atuação multiprofissional* Rev Bras Promoç Saúde.2016;29(1):43-50.
10. Rodrigues YCSJ, Studart RMB, Andrade IRC, Citó MCO, Melo EM, Barbosa IV. *Ventilação mecânica: evidências para o cuidado de enfermagem*. Esc Anna Nery (impr.).2012; 16 (4):789-95.
11. Salgado PO, Tannure MC, Oliveira CR, Chianca TCM. *Identificação e mapeamento das ações de enfermagem prescritas para pacientes internados em uma UTI de adultos* Rev Bras Enferm. 2012; 65(2):291-6.
12. Medeiros AC, Siqueira HCH, Zamberlan C, Cecagno D, Nunes SS, Thurow MRB. *Comprehensiveness and humanization of nursing care management In the Intensive Care Unit*. Rev Esc Enferm USP. 2016;50(5):816-22.
13. Oliveira MAC. *(Re) significando os projetos cuidadosos da Enfermagem à luz das necessidades em saúde da população*. Rev Bras Enferm. 2012; 65(3):401-5.
14. Freitas JS, Silva AEBC, Minamisava R, Bezerra ALQ, Sousa MRG. *Qualidade dos cuidados de enfermagem e satisfação do paciente atendido em um hospital de ensino*. Rev. Latino-Am. Enfermagem. 2014;22(3):454-60.
15. Colaço AD, Nascimento ERP. *Bundle de intervenções de enfermagem em nutrição enteral na terapia intensiva: uma construção coletiva*. Rev Esc Enferm USP .2014; 48(5):844-5.
16. Castaño AMH, Amaya MCDP. *CEI-UCI: instrumento para evaluar el cuidado de enfermería individualizado de adultos en la uci*. Av Enferm. 2015;33(1):104-113.
17. Rojas NP, Bustamante-Troncoso CR, Dois-Castellón A. *Comunicación entre equipo de enfermería y pacientes con ventilación mecánica invasiva en una unidad de paciente crítico*. Aequichan 2014; 14(2):184-95.
18. Novaretti MCZ, Santos EV, Quiterio LM, Daud-Gallotti RM. *Sobrecarga de trabalho da Enfermagem e incidentes e eventos adversos em pacientes internados em UTI*. Revista Brasileira de Enfermagem.2014;67(5):692-99.
19. Carvalho AO, Carlos GP, Souza NL. *Nursing workload and occurrence of adverse events in intensive care: a systematic review*. Rev. esc. enferm. USP. 2016; 50(4):683-94.

20. BRASIL. Resolução da Diretoria Colegiada N° 26. *Dispõe sobre os requisitos mínimos para funcionamento de Unidades de Terapia Intensiva e dá outras providências*. Brasília: Ministério da Saúde, 2012. Available at: <<http://www.anvisa.gov.br/hotsite/segurancadopaciente/documentos/rdcs/RDC%20N%C2%BA%207-2010.pdf>>. Acesso em: 11 de agosto de 2016.
21. Rodrigues YCSJ, Studart RMB, Andrade IRC, Citó MCO, Melo EM, Barbosa IV. *Ventilação mecânica: evidências para cuidado de enfermagem*. Esc Anna Nery (impr.).2012;16(4):789-95.

Received in: 25/09/2017

Required revisions: did not have

Approved in: 17/01/2018

Published in: 01/07/2019

Corresponding author

Priscilla Tereza Lopes de Souza

Address: Rua Domingos Siqueira nº1, Centro,

São José do Egito, Pernambuco, Brazil

Zip Code: 56.700-000

E-mail address: priscillasouza_@hotmail.com

Telephone numbers: +55 (87) 9 9811-2319/ (83) 9 9652-

1001/ (81) 9 8263-6170

**Disclosure: The authors claim
to have no conflict of interest.**