

Federal University of Rio de Janeiro State



# Journal of Research Fundamental Care Online

ISSN 2175-5361  
DOI: 10.9789/2175-5361

## RESEARCH

### Prática do enfermeiro intensivista no tratamento de úlceras por pressão

Practice of the intensive nurse in the treatment of pressure ulcers

Práctica del enfermero intensivista en el tratamiento de úlceras por presión

Anna Lívia de Medeiros Dantas <sup>1</sup>, Patrícia Cabral Ferreira <sup>2</sup>, Késsya Dantas Diniz <sup>3</sup>, Ana Beatriz de Almeida Medeiros <sup>4</sup>, Ana Luisa Brandão de Carvalho Lira <sup>5</sup>

### ABSTRACT

**Objective:** To analyze the performance of the nurses of the intensive therapy unit for the treatment of pressure ulcers. **Method:** Descriptive study developed with 13 nurses from the intensive care unit of a University Hospital in northeastern of Brazil. A questionnaire was applied in June and July 2011 and submitted to thematic content analysis. The study was approved by the ethics committee of the Federal University of Rio Grande do Norte (Protocol 047/2011) and Presentation Certificate to Ethical Consideration 0240.0.051.000-10. **Results:** The nurses mentioned as acting the initial assessment; the choice of coverage, accordingly an individual assessment and the realization of mechanical debridement. **Conclusion:** The role of nurses in the study is restricted and does not follow a standardization of care. **Descriptors:** Pressure ulcers, Nursing care, Intensive care unit.

### RESUMO

**Objetivo:** Analisar a atuação dos enfermeiros de unidade de terapia intensiva no tratamento das úlceras por pressão. **Método:** Estudo descritivo desenvolvido com 13 enfermeiros da unidade de terapia intensiva de um Hospital Universitário no nordeste do Brasil. Um questionário foi aplicado em junho e julho de 2011 e submetido à análise de conteúdo temática. O estudo aprovado pelo Comitê de Ética da Universidade Federal do Rio Grande do Norte (Protocolo 047/2011) e Certificado de Apresentação para Apreciação Ética 0240.0.051.000. **Resultados:** Os enfermeiros mencionaram como atuação a avaliação inicial; a escolha da cobertura, conforme avaliação individual; e a realização de desbridamento mecânico. **Conclusão:** A atuação dos enfermeiros do estudo é restrita e não segue uma padronização dos cuidados. **Descritores:** Úlcera por pressão, Assistência de enfermagem, Unidade de terapia intensiva.

### RESUMEN

**Objetivo:** Analizar la actuación de los enfermeros en la unidad de terapia intensiva en el tratamiento de úlceras por presión. **Método:** Estudio descriptivo desarrollado con 13 enfermeros de la unidad de terapia intensiva de un Hospital Universitario en noreste de Brasil. Fue aplicado un cuestionario en junio y julio de 2011 y sometido a análisis de contenido temático. El estudio fue aprobado por el Comité de Ética de la Universidad Federal de Rio Grande do Norte (Protocolo 047/2011) y Certificado de Presentación para Apreciación Ética 0240.0.051.000-10. **Resultados:** Los enfermeros mencionaron como actuación la evaluación inicial; la elección de la cobertura, conforme evaluación individual; y la realización de desbridamiento mecánico. **Conclusión:** La actuación de los enfermeros del estudio es estricta y no sigue un estándar de cuidado. **Descriptor:** Úlceras por presión, Cuidados de enfermería, Unidad de terapia intensiva.

<sup>1</sup> Nurse. Intensive Therapy Specialist from the Federal University of Rio Grande do Norte. Master of the Postgraduate Program in Nursing at the Federal University of Rio Grande do Norte. Natal, RN, Brazil. Email: livia\_enfa@yahoo.com.br <sup>2</sup> Nurse. Intensive Therapy Specialist from the Federal University of Rio Grande do Norte. Master of the Postgraduate Program in Nursing at the Federal University of Rio Grande do Norte. Natal, RN, Brazil. Email: titiciacf@yahoo.com.br <sup>3</sup> Nurse. Master's degree in Nursing. Docent in the Department of Nursing at the Federal University of Rio Grande do Norte. Nurse of the University Hospital Onofre Lopes. Natal, RN, Brazil. Email: kessyadantas@yahoo.com.br <sup>4</sup> Nurse. Master's degree in Nursing from the Federal University of Rio Grande do Norte, Natal, RN, Brazil. Email: abamedeiros@gmail.com <sup>5</sup> Nurse. PhD in Nursing from the Federal University of Ceará. Assistant Professor II of the Department of Nursing and of the Postgraduate Program in Nursing at the Federal University of Rio Grande do Norte. Federal University of Rio Grande do Norte. Natal, RN, Brazil. Email: analuisa\_brandao@yahoo.com.br.

## INTRODUCTION

**T**he patient is considered critical when presents changes in one or more vital organs, has risk or hemodynamic instability, evolves with serious disorders, requires rigorous controls or makes use of more complex therapies. The intensive therapy unit (ICU) is the area destined for the hospital care of these patients, since they require medical assistance and nursing care uninterrupted, with specific own equipment.<sup>1-2</sup>

Patients hospitalized in the ICU demand multidisciplinary team care, constant monitoring and performing invasive procedures. A high dependency index related to the clinical framework, increase in the time and cost of treatment, in addition to numerous complications, such as the formation of pressure ulcers (PUs) and nosocomial infection are inherent characteristics to this clientele.<sup>1</sup>

In this context, the PUs are great challenge for health services, due to the complexity of actions that involve the prevention and treatment of these lesions.

The PUs are important causes of morbidity and mortality, affecting the quality of life of patients and their caregivers and being of high economic spending for health services, in addition to performing as an important indicator of quality of care.<sup>3-4</sup>

The daily care of the skin of severe patient's must be done by the nurses, professional that adds knowledge about risk factors and complications arising from PUs, allowing the classification of the degree of dependence and the prescription of care needed for the treatment.<sup>5</sup>

It is known that the occurrence of PUs in hospitals is still frequent and should be considered as a complication of the situation of the patient's health, especially if it is critically ill.

A national study showed that the global incidence of pressure ulcers in hospitalized patients ranges from 2.7 to 29%. That number rises to 33% in patients hospitalized in Intensive Therapy Units. With respect to morbidity and mortality, the length of hospitalization of a patient who develops a pressure ulcer can increase about 5 times, and the risk of death becomes elevated in about 4.5 times, when compared to patients with the same risk of death without this condition.<sup>6</sup>

There are few local situational diagnosis studies about incidences of PUs in Intensive Therapy Units. A study conducted in a private hospital in Natal/RN showed that the overall rate of PUs in ICUs was 50%, being 64.5% in general ICU and 42.3% in cardiology ICU. These numbers are considered very high, even when related to the high level already diagnosed in other national and international studies.<sup>1</sup>

Starting from experiences lived in an Intensive Therapy Unit, it was possible to observe the dynamics of the process of care to the several patient and its complexity. In front of the observed, we understand the extreme importance of working around the reduction of

complications or iatrogenic, for which serious patients are more susceptible because of their clinical conditions, among them the formation of pressure ulcers.

Given the above, it is believed that the nurse must be qualified for the prevention and treatment of this complication associated with health care, maintaining focus on determining factors and conditions that interfere in the care of the severe patient susceptible to pressure ulcers.

In this way, the relevance of this study lies in the contribution to improving the assistance provided to the patient with PUs under intensive therapy, with the possible reduction in the severity of injuries and complications arising from its appearance, resulting in shorter stay of the hospitalized patient and in lower treatment costs. To this end, the aim in this study was to analyze the performance of the nurses of the intensive therapy unit in the treatment of pressure ulcers.

## METHOD

This is a descriptive study with a qualitative approach, carried out in the complex of intensive therapy of a university hospital in northeastern Brazil, which has two ICUs, one with eight beds destined for the care of general clinical and surgical patients, and other one with four beds destined for coronary patients and surgical care of cardiology and neurology specialties.

The study population was composed by the nurses of the hospital ICUs, totaling 15 professionals. The sampling was intentional and featured 13 nurses, with inclusion criteria: to be a nurse of the ICU and not be on vacation during the period of data collection. Some nurses did not participated in the research, because of license in the collection period and be one of them the research advisor.

As an instrument of data collection, a semi-structured interview script was used, consisting of two parts, the first one with the intention to investigate the professional data of nurses, related to education, professional experience and expertise in practice; and the second one, which addressed the clinical management of patients with PUs. The data were collected in the months of June and July 2011.

The data analysis occurred in three moments: pre-analysis (floating reading of transcripts data recordings); exploration of the material (selection of lines of the subjects and organization of categories or thematic cores); and processing of results (interpretation). Thus, the floating reading of the empirical material and the constitution of the corpus was performed, which takes place from the validation criteria: exhaustiveness, representativeness and relevance.<sup>7</sup>

As a result, transcription was performed followed by data analysis. The answers obtained from the questionnaires were transcribed totality, and the data were analyzed and

consolidated, compared on the basis of existing literature about the subject and grouped into categories.

Later, from the analyses of the responses of the nurses, emerged the following category: *Pressure ulcers treatment applied in practice*. To ensure the anonymity of respondents, were used pseudonyms of Roman gods (Angitia, Baco, Apolo, Vênus, Carna, Bellona, Juno, Strenia, Egeria).

The project was approved by the Research Ethics Committee of the Federal University of Rio Grande do Norte by Protocol No 047/2011 and for Presentation Certificate for Ethical Appreciation n° 0240.0.051.000-10. All the participants signed an informed consent form, respecting the ethical precepts of Resolution No. 196/96 of the National Health Council of the Health Ministry, which regulates research involving human subjects.<sup>8</sup>

## RESULTS AND DISCUSSION

In the complex of intensive therapy at the searched hospital, act 15 nurses in care level, being 11 exclusive sector nurses and four professionals of other sectors, which work in the ICU in eventual attendance. 13 nurses participated in the research. All employees are part of the effective framework of the institution.

As for sex, it was observed that of the 13 nurses survey, 11 subject are female and two male, responding to 84.62% and 15.38%, respectively.

The checked level of education of professionals, showed that a nurse was in the process of PhD, six nurses had a Masters degree in nursing and the other participants had some *latu sensu* specialization title. As regards the time of education in the area of nursing, the study showed that the minimum time was seven years and a maximum of 21 years, being the average of 13.9 years.

When asked about participation in training programs that address the theme of the prevention and treatment of ulcers, only 30% of professionals performed some sort of activity relevant to the topic.

### **Treatment of pressure ulcers applied in practice**

As for the treatment of pressure ulcers suggested by the nurses, emerged the following subcategories, namely: evaluation, dressing and debridement.

For nurses, the evaluation is to measure the degree of depth of the wound, the aspect for, from observation, choose the best coverage to be used.

*I evaluate the risk of pressure ulcers, we perform the decubitus change in 2/2 hours. We must be careful to keep the patient clean, hydrated skin, I evaluate the wound, suggest the debridement when necessary. I evaluate also the laboratory examinations,*

*check antibiotic, apply hydrocolloid, collagenase and other materials according to the wound. (Angitia)*

*I perform the daily evaluation of the aspect of the wound to analyze what the material adapted best to the aspect of injury. (Baco)*

*I evaluate whenever possible the injury, relating also to the nutritional aspects of the patient, since this factor is of extreme importance to the recovery of the wound. (Apolo)*

After the initial evaluation, the nurses choose the kind of coverage according to the availability of the institution. More than a professional dealt with the limitation of products available in the hospital as a complicating factor for the follow-up treatment. The main products used were the essential fatty acids, alginate fibers, hydrogels, pa-pain and collagenase.

*Depending on the stage of the lesion we can use various products with hydrocolloids, hydrogels in dry necrosis, calcium alginate to cavitation or exudative lesions, chemical debridement and nutritional evaluation. (Venus)*

*Today we know that there are many types of dressings, but on our service we have only fatty acids essential regularly. (Carna)*

The nurses gave emphasis to the importance of the exchange of the dressings in their lines. Some reported that the exchange of the bandage should be daily, with the use of saline and aseptic technique, beyond adequate coverage available in the institution.

*I use my knowledge in the indication of the type of substance, debridement when necessary, and discuss conducts with the team. (Bellona)*

*In this unit, the pressure ulcers are treated in accordance with the guidance of the team of dressings and available resources at the hospital. However, at the same time, we use the air mattress, the change in decubitus, and, if we have conditions, we pulled the patient from bed to chair. (Juno)*

It was also identified that nurses always suggest mechanical debridement when necessary. The answers from the professionals induce the reflection that this isn't done by nurse debridement of the Unit, but shared with the team, and sometimes, asked to advise the team of dressings from the hospital.

*In my practice I do dressings and evaluate the wound seeing the possibility of surgical intervention. (Strenia)*

*In my practice, I try to evaluate the lesion with a lot of effort, too bad we don't have many resources to apply. (Egeria)*

*I can evaluate the wound as the causes, suggesting debridement when necessary, usually accomplished by the dressing team, I evaluate nutritional aspects and types of coverage according to the aspect of injury. (Angitia)*

Several authors emphasize the initial evaluation as indispensable for the treatment of injuries, and should be held individually, observed since systemic aspects as presence of comorbidities, smoking, alcoholism, nutritional aspects, age, followed by the evaluation of the lesion about the staging and the presence of infection, which will guide the professional with respect to better conduct to be taken.<sup>9-11</sup>

There are some particularities in relation to the conducts performed in front of a selective evaluation, like the instructions described below: the use of aseptic technique; the use of saline solution at body temperature (37° C), as a way to increase the multiplication of cells; the use of serum at jato instead of friction of gauze in the bed of the wound; coverage of non-adherent gauze to the detriment of the common cotton gauze; the primary gauze humidification in contact with thr injury.<sup>12</sup>

It is known that the healing exchange is an integral part of the care of the injury and the coverage is of the utmost importance for the success of treatment, however it should be preceded by a careful evaluation, because each cover features the most diverse directions and the same injury may require more than one product, according to the change of its features. The evaluation and verification of the wound should be performed every healing exchange, by a nurse, who must exercise their autonomy, since they has the technical and scientific competence to perform such careful and so obtain successful.<sup>9,11</sup>

The mechanical debridement should be performed when there is presence of devitalized tissue on the wound bed, in order to allow that the cover act into the wound, in addition to allowing the tissue vitalize naturally. The *European Pressure Ulcer Advisory Panel (EPUAP)* points out that the mechanical debridement should be performed by qualified professional and demand specific knowledge, dexterity and use of aseptic technique.<sup>12</sup>

Given the above, it can be seen that the professionals are limited as regards the treatment of pressure ulcers in ICU. By the observed, it was possible to identify that the professional associates the treatment almost exclusively to replacement of dressing and the use of toppings, but it is known that, in the face of literature studied, pressure ulcers, to be dealt with, need primarily that the main contributing factor to be abolished, the pressure.

Therefore, aspects such as staging, the use of better coverage, debridement should be associated with the prevention factors, which are reducing friction forces and shear, using support surfaces, nutritional monitoring, humidity control, periodic and multidisciplinary monitoring of the patient, which are aspects of extreme importance in improving the quality of care.<sup>12</sup>

To this end, nursing, that has always been committed to educating and guiding function within their practice, must develop educational processes, in the most diverse health care environments in order to promote the development of technical skills in order to qualify the nurse to perform a safe practice for the patient with injury as for them, being responsible for ensuring a quality assistance.<sup>13-14</sup>

It is still emphasize, the need for a more systematic assistance involving other aspects of paramount importance for the treatment and are simple to perform, as for example: position the patient with bedsores of 30 degrees in any positions that remain; strengthen the use of the support surfaces for pressure relief of the bony prominences; exercise and patient mobility, even if passive movements; the use of proper positioning techniques to avoid friction and shear. These additional measures are essential components for the success of the therapy.<sup>15-16</sup>

The described findings were not mentioned in the account of the nurses, but are of great relevance to the evaluation and evolution of the assistance, since it makes possible the continuation of assistance by the various professionals.

In addition to the care mentioned, the use of protocols for the prevention and treatment of pressure ulcers has shown success when applied systematically, being an important tool for assistance. The implementation of the protocol for the prevention of PU means a strategic decision of strengthening the best of assistance practices.<sup>17</sup>

The understanding of the care practice from technical-scientific development, is only based on an individualized point of view of the critical patient, being necessary to identify elements that are part of the patient's skin care, in order to keep full or restore the integrity during the institutionalization.<sup>18</sup>

## CONCLUSION

In the face of divergent account of professionals with regard to the conducts carried out in practice, it was observed in this study, that nurses establish important care for the treatment of pressure ulcers, however not so standardized and based on current scientific evidence. This fact is worrying, considering that the nurse is an active agent in the process of care to the patient and their needs, and must seize upon knowledge that provide basis for the treatment of iatrogenic, among them the pressure ulcers.

The process can be achieved by building protocols for the prevention and treatment of pressure ulcers, which should be reviewed periodically, allowing standardization of assistance, with emphasis on health education.

Given the above, one should consider the importance of training of nursing staff of intensive care unit with respect to the treatment and prevention of injuries; and the work of the multidisciplinary team in an integrated manner, through sharing of knowledge, discussion of cases and joint action, in order to provide quality care to patients.

## REFERENCES

1. Fernandes NCS, Torres GV. Incidência e fatores de risco de úlceras de pressão em pacientes de Unidade de Terapia Intensiva. *Cienc Cuid Saude*. 2008; 7(3):304-10.
2. Beck ACL, Guerra DM. Avaliação do custo do tratamento de úlceras por pressão em pacientes hospitalizados usando curativos industrializados. *Cienc Saude Coletiva*. 2011; 16(1): 267-77.
3. Furman GF, Rocha AF, Guariente MHD, Barros SKSA, Morooka M, Mouro DL. Úlceras por pressão: incidência e associação de fatores de risco em pacientes de um hospital universitário. *Rev Enferm UFPE on line [periódico on line]*. 2010 [citado 6 ago 2012];4(3): [aprox. 8 telas]. Disponível em: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/1148/0>
4. Rogenski NMB, Kurcgant P. Incidência de úlceras por pressão após a implementação de um protocolo de prevenção. *Rev Lat Am Enfermagem*. 2012; 20(2):1-7.
5. Valença MP, Lima PO, Pereira MM, Santos RB. Percepção dos enfermeiros sobre a prevenção das úlceras por pressão em um Hospital Escola da cidade do Recife. *Rev Enferm UFPE on line [periódico on line]*. 2010 [citado 6 ago 2012];4(2): [aprox. 10 telas]. Disponível em: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/852>
6. Rocha JA, Miranda MJ, Andrade MJ. Abordagem terapêutica das úlceras de pressão: intervenções baseadas na evidência. *Acta Med Port*. 2006; 19:29-38.
7. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 8ª Ed. São Paulo: HUCITEC; 2004.
8. Ministério da Saúde (BR). Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras da pesquisa envolvendo seres humanos: Resolução nº 196/96. Brasília (DF); 1996. [citado 8 ago 2012]. Disponível em: URL: <http://www.ufrgs.br/hcpa/gppg/res19696.htm>
9. Scemons D, Elston D. Nurse to nurse: cuidados com feridas em enfermagem. Porto Alegre: AMGH; 2011.
10. Morais GFC, Oliveira SHS, Soares MJGO. Avaliação de feridas pelos enfermeiros de instituições hospitalares da rede pública. *Texto & Contexto Enferm*. 2008;17(1):98-105.
11. Santos AAR, Medeiros ABA, Soares MJGO, Costa MML. Avaliação e tratamento de feridas: o conhecimento de acadêmicos de enfermagem. *Rev Enferm UERJ*. 2010; 18(4):547-52.
12. European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel. Prevention and treatment of pressure ulcers: quick reference guide. Washington DC: National Pressure Ulcer Advisory Panel; 2009.
13. Lise F, Silva LC. Prevenção de úlcera por pressão: instrumentalizando a enfermagem e orientando o familiar cuidador. *Acta Bioeth [periódico on line]*. 2007 [citado 6 ago 2012];29(2): [aprox. 5 telas]. Disponível em: <http://periodicos.uem.br/ojs/index.php/ActaSciHealthSci/article/view/1072/530>



14. Araújo CRD, Lucena STM, Santos IBC, et al. A enfermagem e a utilização da escala de Braden em úlcera por pressão. *Rev Enferm UERJ*. 2010; 18(3):359-64.
15. Pauma MR, Casanova PL, Molina PG, Moncasi PI. Superfícies especiais para el manejo de la presión em prevención y tratamiento de las úlceras por presión. Serie Documentos Técnicos GNEAUPP n° XIII. Grupo Nacional para el Estudio y Asesoramiento em Úlceras por Presión y Heridas Crónicas. Logronõ; 2011.
16. Coêlho ADA, Lopes MVO, Melo RP, Castro ME. O idoso e a úlcera por pressão em serviço de atendimento domiciliar. *Rev Rene*. 2012; 13(3):639-49.
17. Silva EWNL, Araújo RA, Oliveira EC, Falcão, VTFL. Aplicabilidade do protocolo de prevenção de úlcera de pressão em unidade de terapia intensiva. *Rev Bras Ter Intensiva*. 2010; 22(2):175-85.
18. Alves AR, Belaz K, Rodrigues RM, Ribeiro SMT, Kato TTM, Medina NVJ. A importância da assistência de enfermagem na prevenção da úlcera por pressão no paciente hospitalizado. *Rev Inst Invest Cienc Salud [periódico on line]*. 2008 [citado 6 ago 2012];26(4): [aprox. 6 telas]. Disponível em: [http://www.unip.br/comunicacao/publicacoes/ics/edicoes/2008/04\\_out\\_dez/V26\\_N4\\_p397-402.pdf](http://www.unip.br/comunicacao/publicacoes/ics/edicoes/2008/04_out_dez/V26_N4_p397-402.pdf)

Received on: 15/06/2013  
Required for review: No  
Approved on: 06/01/2014  
Published on: 01/04/2014

Contact of the corresponding author:  
Ana Beatriz de Almeida Medeiros  
Campus Universitário, n.3000. Bairro: Lagoa Nova. CEP: 59072-970.  
Natal/RN. Brasil. E-mail: abamedeiros@gmail.com