

# A NURSING CONSULTATION FOR TREATMENT OF WOUNDS IN A TEACHING HOSPITAL\*

Deise Cristina Furtado Liedke<sup>1</sup>, Derald Athanasio Johann<sup>2</sup>, Mitzy Tannia Reichembach Danski<sup>3</sup>

<sup>1</sup>RN. M.A. in Nursing. Hospital de Clínicas of the Federal University of Paraná. Curitiba-PR-Brazil.

<sup>2</sup>RN. Ph.D. in Nursing. Federal University of Paraná. Curitiba- PR-Brazil.

<sup>3</sup>RN. Ph.D. in History. Federal University of Paraná. Curitiba-PR-Brazil.

**ABSTRACT:** This descriptive documental research aimed to characterize the socio-demographic and clinical profile of patients in a nursing outpatient center for the treatment of wounds in a teaching hospital. Data collection occurred in October 2013. The sample was 142 medical records of patients attended between January 2007 and December 2012. The study reveals the importance of the nursing outpatient center for treating chronic wounds. Among the characteristics, the following stand out: a predominantly female population 73 (51.40%), and mean age of 55 years old, and an age range of 0 to 90 years old, with the highest percentage between 61 and 70 years old; the most frequent wounds were venous, with 112 (44.45%). In relation to the number of wounds per person attended, 79 (55.64%) had one wound. The diseases associated with the development of the wounds were Systemic Arterial Hypertension 67 (47.18%) and Chronic Venous Insufficiency 58 (40.84%).

**DESCRIPTORS:** Nursing; Ulcer; Healing.

## CONSULTÓRIO DE ENFERMAGEM PARA TRATAMENTO DE FERIDAS EM HOSPITAL DE ENSINO

**RESUMO:** Pesquisa documental descritiva com objetivo de caracterizar o perfil sócio demográfico e clínico de pacientes, em ambulatório de enfermagem para tratamento de feridas, em um hospital de ensino. A coleta de dados ocorreu em outubro de 2013. A amostra foi de 142 prontuários de pacientes atendidos entre janeiro de 2007 a dezembro de 2012. O estudo revela a importância do ambulatório de enfermagem para tratar feridas crônicas e dentre as características destacam-se: população predominantemente feminina 73(51,40%), média de 55 anos de idade e abrangência etária de zero a 90 anos com maior percentual entre 61 e 70 anos; as feridas mais frequentes foram venosas 112(44,45%). Em relação ao número de feridas por pessoa atendida, 79(55,64%) apresentavam uma ferida. As doenças associadas ao desenvolvimento das feridas foram Hipertensão Arterial Sistêmica 67(47,18%) e Insuficiência Venosa Crônica 58(40,84%).

**DESCRIPTORIOS:** Enfermagem; Úlcera; Cicatrização.

## CONSULTORIO DE ENFERMERÍA PARA TRATAMIENTO DE HERIDAS EN HOSPITAL DE ENSEÑANZA

**RESUMEN:** Investigación documental descriptiva con objetivo de caracterizar el perfil social, demográfico y clínico de pacientes, en ambulatorio de enfermería para tratamiento de heridas, en un hospital de enseñanza. Los datos fueron obtenidos en octubre de 2013. La muestra fue de 142 prontuarios de pacientes atendidos entre enero de 2007 y diciembre de 2012. El estudio revela la importancia del ambulatorio de enfermería para tratar heridas crónicas y entre sus características se destacan: población predominantemente femenina 73(51,40%), media de 55 años de edad y abrangencia etaria de 0 a 90 años con mayor porcentual entre 61 y 70 años; las heridas más frecuentes fueron venosas 112(44,45%). En relación al número de heridas por persona atendida, 79(55,64%) presentaban una herida. Las enfermedades asociadas al desarrollo de las heridas fueron Hipertensión Arterial Sistémica 67(47,18%) e Insuficiencia Venosa Crónica 58(40,84%).

**DESCRIPTORIOS:** Enfermería; Úlcera; Cicatrización.

---

### Corresponding author:

Deise Cristina Furtado Liedke  
Hospital de Clínicas da Universidade Federal do Paraná  
Rua General Carneiro, 181 - 80060-900 - Curitiba-PR-Brasil.  
E-mail: deisecliedke@gmail.com

**Received:** 25/11/2013

**Finished:** 17/06/2014

## INTRODUCTION

A wound can be defined as any lesion resulting in a break to the continuity of the skin, and can be classified as chronic if it is of long duration or is recurrent<sup>(1)</sup>. The meaning of the term “wound” goes beyond a single definition, as culturally it takes on the meaning of something which penalizes, which causes disgrace, which weakens the person or leaves a scar, even interfering in the undertaking of routine tasks<sup>(2-3)</sup>.

With the increase in populations’ life expectancy, the appearance of chronic diseases has become frequent. In recent years, chronic wounds have received special attention from health professionals, due to the high rates of prevalence and incidence and to the socio-economic impact for the patients, their family members, the health services, and society in general<sup>(4)</sup>.

The estimates demonstrate that the number of cases of patients with chronic wounds of various types is high. It is considered that 70% to 80% of ulcers in the lower limbs are venous wounds<sup>(5-7)</sup>, followed by arterial wounds (8%), diabetic wounds (3%), wounds resulting from trauma (2%) and others (14%), which include pressure ulcers, wounds from leprosy, dermatological wounds and those caused by surgical infections<sup>(8)</sup>.

The real number of patients with pressure ulcers in Brazil, however, remains unknown, as the recording and obtaining of the rate of occurrence (prevalence and incidence) remain little published<sup>(4)</sup>. One study undertaken in a public hospital in the Brazilian state of Paraná identified a prevalence of 10.04% in the inpatient units and 6.10% in units of critical care<sup>(9)</sup>.

Although historically, people have always shown a concern with caring for wounds, it was only at the end of the 1950s that the first studies began to appear on wound healing in a humid environment. The concept of wound healing in the humid environment was introduced for the first time by George Winter in 1962, in a study with animals, when a comparison was made between keeping the wound bed exposed so as to form a crust and the effect of applying a permeable film covering. It was observed that epithelialization occurred twice as fast in the wounds with dressing<sup>(10)</sup>.

In Brazil, it was only in the 1990s that the first works on humid dressings began to appear,

allowing the Brazilian market access to specific products for treating wounds<sup>(2)</sup>.

In this regard, new technologies in wound treatment – the dressings termed special dressings – drew nurses’ attention, including those in the teaching hospital in which this study was undertaken, due to the need for updating regarding wound treatment.

With this aim, in the beginning of June 1998, a meeting was held to establish the Dressings Group, with the aim of studying healing, as well as to standardize the dressing technique within the institution. In the following year, training was undertaken for the entire nursing team, addressing concepts in healing and the dressing technique which would be standardized. The Group’s activities were terminated in July 1999, for reasons against the will of the participants.

The Outpatient Dressings Clinic was set up, beginning its activities in May 1999, with two nurses. The objective was to treat the chronic wounds of patients attended in the hospital’s outpatient units and in the various speciality units; however, there was no standardization of special dressings in the institution. At that time, the recording of the nursing consultation was undertaken in a specific record, which was not part of the patient’s medical records, being archived in the outpatient clinic itself. However, the nurses aimed to comply with Resolution 159 of the Federal Council of Nursing<sup>(11)</sup>, which regulates the nursing consultation: Article. 1 determines that at all levels of health care, whether in a public or private institution, the nursing consultation must obligatorily be undertaken in the nursing care.

Thus, in 2001, the outpatient clinic came to be designated the Wound Treatment Outpatient Center, and was better structured, with the objective of evaluating chronic wounds, and defining and undertaking the treatment with the use of special dressings, and monitoring the patient and/or caregiver. In addition, a protocol was defined for treating outpatient chronic wounds, and a nursing consultation record was developed which was annexed to the patient’s medical records.

It is emphasized that because this is a hospital of the Unified Health System (SUS) network, the procedures undertaken by the nurses are recorded in accordance with the codes of the SUS/SIGTAP table<sup>(12)</sup>; for example: code 0301010048 – consultation with a professional

with degree-level education in the specialised care (but not physician); code 0401010015 – grade II dressing with and without debridement. The appropriate recording of these codes was taken as a premise, as it generates monthly income for the hospital, which allows the purchasing of the special dressings. As a result, the outpatient center currently has available 12 types of dressings, ranging from a cleaning solution, debriding dressings, absorbent dressings, anti-bacterial dressings, and occlusive dressings.

The production data of this outpatient center in 2012 were 1554 nursing consultations, 1976 specialized dressings, debridement of keratoses, and advice, totaling 7754 nursing procedures, generating an income of R\$74,002.31<sup>(13)</sup>.

It is indubitable that chronic wounds cause immense problems, as they are recurrent, incapacitating, and cause permanent pain, withdrawal from work and social coexistence, psychosocial changes in the patients and their family members, expenses, and the risk of infections. The importance of the care protocol for those with wounds is reinforced by the fact that a wrong conduct increases the probability of an acute wound becoming chronic, increasing the social and emotional cost<sup>(8)</sup>. Furthermore, it is emphasized that regardless of the context in which she works, the nurse bases her decisions in scientific principles, as in planning and carrying out the care for those with wounds, she exercises autonomy and takes responsibility for the result<sup>(14)</sup>.

It should be highlighted that scientific societies and bodies such as the Brazilian Society of Nursing in Wounds and Aesthetics, the Brazilian Stomal Therapy Association and the Brazilian Society of Dermatology Nursing, contribute to scientific growth, discussions, and the professionals' empowerment.

In the light of the report of the implantation of the nursing outpatient center for wound treatment, this article aims to characterize the patients attended, by socio-demographic and clinical data.

## METHODOLOGY

This is quantitative, descriptive and documental research. The research scenario was a teaching hospital which is the largest hospital in the state of Paraná, attending a mean of 96,000 patients

per month. Among the outpatient attendances, 58.29% of patients are from Curitiba, 28.19% are from the metropolitan region, and 12.08% are from other municipalities<sup>(13)</sup>.

The data were collected in an instrument elaborated for the purpose. The inclusion criteria encompassed all the medical records of the patients being attended in the Outpatient Dressings Center in the period of January 2007 – December 2012. The time cut-off point is related to the implementation of the nursing consultation record in 2007, which allowed better recording and characterization of the patients, as the previous file was incomplete in relation to the socio-demographic data. Medical records which were inactive due to death and/or abandonment of treatment were excluded, the final sample totaling 142 medical records. The data collection period was in October 2013.

The data were grouped and organized in tables, but categorized and coded manually, and, later, recorded in an electronic Excel® spreadsheet. Following that, they were subjected to descriptive statistical treatment, followed by an analysis of relative and absolute frequency, with support from the relevant literature on the issue in question.

Regarding the ethical aspects of the study, the stipulations of Resolution 466/12 of the National Health Council were respected. The collected data were transcribed and stored electronically (memory drive) for a period of five years. The study was approved by the Federal University of Paraná's Committee for Ethics and Research in Human Beings, under N. CAAE: 198556713.10000.0096, and due to its characteristics, the terms of free and informed consent were dispensed with.

## RESULTS

This section presents results from the data in 142 sets of medical records from the Outpatient Dressings Center. The socio-demographic characteristics of the patients listed in the medical records are shown in Table 1. In relation to age, the patients' mean age was 55 years old, with a median age of 57 and standard deviation of 15.45, and an age range of 0 to 19 years old, with the greatest percentage in the age range between 61 and 70 years old.

As this is a SUS service and a center of

excellence, many patients from other localities sought attendance there. Of these, 69 (48.59%) are patients from Curitiba, 45 (31.69%) are from the metropolitan region, and 28 (19.71%) are from other municipalities in the state of Paraná, such as Foz do Iguaçu, Ponta Grossa, Irati and Ortigueira.

It was observed that among the patients who were retired, or off work and/or on medical leave, 18 (26.8%) were continuing to work informally or autonomously so as to add to the family income and, consequently, were interfering with their treatment. Among the more common occupations, being a shopkeeper, agricultural worker, house-keeper, or driver stand out. The predominant ethnicity was whites (114; 80.28%), followed by mixed race (17; 11.97%), blacks (nine; 6.33%) and Asians (two; 1.40%).

Table 2 presents the wounds' etiologies, in a total of 252 chronic wounds. Those of

Table 1 - Patients' socio-demographic profile, between 2007 and 2012, attended in the Outpatient Dressings Center. Curitiba-PR-Brazil, 2013

<b>Sex</b>	<b>n</b>	<b>%</b>
Female	73	51,41
Male	69	48,59
<b>Age range</b>	<b>n</b>	<b>%</b>
0-10 yrs old	02	1,40
11-20 yrs old	02	1,40
21-30 yrs old	11	7,74
31-40 yrs old	08	5,63
41-50 yrs old	18	12,68
51-60 yrs old	29	20,42
61-70 yrs old	44	31,01
71-80 yrs old	23	16,20
81-90 yrs old	05	3,52
<b>Marital status</b>	<b>n</b>	<b>%</b>
Married	81	57,04
Single	28	19,71
Divorced	18	12,68
Widowed	15	10,57
<b>Occupation</b>	<b>n</b>	<b>%</b>
Retired	57	40,14
House-wife/husband	47	33,10
Working	19	13,38
On leave	10	7,04
Student	06	4,22
Spousal support	03	2,12
<b>Total</b>	<b>142</b>	<b>100</b>

venous origin predominated, with 112 (44.45%). Among the venous wounds, the most frequent location was the internal malleolus, followed by the external malleolus and the calf. In wounds resulting from leprosy, those in the plantar region predominated. Regarding pressure ulcers, the most frequent location was the sacral region, and in relation to the dehiscence of sutures, the most frequent region was the abdomen.

Table 3 presents the number of wounds per

Table 2 – Distribution of the total number of wounds, by etiology, between 2007 and 2012, among patients attended in the Outpatient Dressings Center. Curitiba-PR-Brazil, 2013

<b>Type of wound</b>	<b>n</b>	<b>%</b>
Venous	112	44,45
Leprosy	32	12,69
Dehiscence of sutures	29	11,49
Pressure ulcer	20	7,95
Dermatological	17	6,78
Hematological	15	5,94
Arterial	06	2,38
Orthopedic	06	2,38
Trauma	06	2,38
Oncological	05	1,98
Others	04	1,58
<b>Total</b>	<b>252</b>	<b>100</b>

patient and when the wound began. In relation to the number of wounds, 79 (55.64%) presented one wound, 35 (24.64%) two wounds and 10 (7.05%) more than four wounds.

The wound denominated dehiscence of sutures represented 29 cases, of which the most frequent were in lower limbs following saphenectomy 10 (38.46%), and seven (26.92%) in the abdominal region following herniorrhaphy. In relation to the patients with leprosy, the majority presented sequelae of healed wounds with keratosis, fissures and interdigital maceration. Patients with leprosy are continuously monitored, with no option of discharge from the outpatient service, receiving podiatric care with a focus on prevention.

Table 4 presents the diseases associated with the occurrence of the wounds, the most frequent being arterial hypertension 67 (47.18%). It was ascertained that 54 (38.02%) patients were discharged following healing, and that treatment was abandoned in 41 (28.87%) cases. Of these, two (5.2%) did so following the first consultation,

and 28 (68.29%) after three months of monitoring, a period in which there is generally a significant improvement in the wounds.

Table 3 - Distribution of the number and duration of wound per patient, attended in the Outpatient Dressings Center, between 2007 and 2012. Curitiba-PR-Brazil, 2013

Number of wounds	n	%
1 wound	79	55,64
2 wounds	35	24,64
3 wounds	13	9,15
4 wounds	05	3,52
More than 4 wounds	10	7,05
Duration of wound	n	%
3 months	64	45,07
3 – 6 months	11	7,75
6 – 12 months	11	7,75
1 – 2 years	17	11,97
2 – 5 years	14	9,86
5 – 10 years	03	2,11
More than 10 years	14	9,86
Does not know	08	5,63

Table 4 - Distribution of diseases associated with the occurrence of wounds in patients, between 2007 and 2012, attended in the Outpatient Dressings Center. Curitiba-PR-Brazil, 2013

Disease	n	%
Arterial hypertension	67	47,18
Chronic venous insufficiency	58	40,84
Type ii diabetes	35	24,64
Cardiopathy	18	12,67
Dyslipidemia	17	11,97
Leprosy	16	11,26

## DISCUSSION

In the study's sample, it was observed that there was a higher frequency for the occurrence of wounds among female patients 73 (51.40%), similar to the results of another Brazilian study<sup>(15)</sup>.

The extension of life expectancy, and the preservation of functional capacity, contribute to the appearance of wounds at older age ranges, as observed in this study, in which the greatest frequency for lesions occurred in patients aged between 61 and 70 years old. Similar data was found in studies of socio-demographic characterization for the years 2011 and 2012<sup>(15-16)</sup>. It is important to remember that elderly

patients with chronic wounds are weak and have limitations, as they present difficulty in healing, inherent to the process of aging<sup>(17)</sup>.

The highest frequency in the occurrence of the wounds was for the category of those who are retired and house-wives. One fact which drew attention was that 18 (26.86%) of the patients were retired or on leave for medical reasons, but continued working, generally informally and/or autonomously, followed numerically by the housewives. This situation suggests the impossibility of adequate rest which would help significantly in the treatment of the wound. This situation was reported by the patients, and noted in the nursing consultation record.

In relation to the type of wound, venous wounds predominated (112 – 44.45%), this data corroborating studies which show that the most frequent wounds of the lower limbs are those of venous origin<sup>(15,18)</sup>. It should be noted that the diabetic wounds, common in another study<sup>(15)</sup> do not appear in this study - as a result of the hospital having a specialized Diabetic Foot outpatient center, to which these patients are referred.

In relation to the pressure ulcers, the predominant locations were the sacral and sciatic regions. In correlating these results with other studies, only data referent to inpatients are found, the most frequent location being the heels<sup>(19-20)</sup>. The results of this study, therefore, undertaken in the outpatient center, demonstrate a different scenario when compared to that of inpatients.

According to one study<sup>(20)</sup>, the most frequent associated diseases in patients with wounds are chronic venous insufficiency, systemic arterial hypertension, type II diabetes, cardiopathies, leprosy and dyslipidemia, a situation also found in this study. At a lesser frequency, diseases such as the following appear: leishmaniasis, sequelae of poliomyelitis, systemic lupus erythomatosus, sickle cell anemia, fibromyalgia, rheumatoid arthritis, erysipelas, thyroid disorders, obesity, kidney failure, degenerative neuromuscular disease and depression.

In relation to the number of wounds per patient, the study showed that 79 (55.64%) had only one wound, corroborating studies which showed a higher percentage of patients with a single wound<sup>(15,20)</sup>. It was observed that some patients had more than one wound, and of differing etiologies,

for example, a wound from the dehiscence of sutures in the abdomen, and a pressure ulcer in the sacral region due to inpatient treatment.

Regarding the duration of the wound, 64 (45.07%) had presented the wound less than three months previously, evidencing the speed of the first attendance in the outpatient center following the appearance of the wound, this differing from other studies<sup>(16,20)</sup>. This demonstrates that the patient arrives for the first consultation between six months and one year after the beginning of the wound. In this study, it is supposed that the lesser time to initiation of treatment is owed to the speed of the referral of the patient to the outpatient center, and to the availability of spaces for the patients.

## CONCLUSION

The study made it possible to record the trajectory of implanting the outpatient center for wound treatment, and to identify the population attended, data which until then were unknown by the service and institution.

All the patients must receive, and deserve, special attention; however, this study evidenced a population mainly aged over 60 years old, which has weaknesses and limitations inherent to aging. It is important for the team, in respect of patients with chronic wounds, to be alert to the fact that age and its associated diseases interfere in wound healing.

Based on this knowledge of the population studied, it is possible to indicate paths and ideas, to encourage health professionals to seek training, and to propose measures for the prevention of complications. Emphasis is placed on the relevance of advice and attention for the family member and/or caregiver, as the patient needs assistance at home for care with dressings, and to be encouraged and facilitated in adherence to the treatment. The nurse must act not only in providing care, but also in educating in health, concerning herself with the prevention of complications.

## REFERENCES

1. Dealey C. Cuidado de feridas: um guia para as enfermeiras. 3ª. ed. São Paulo: Editora Atheneu; 2008.
2. Jorge AS, Dantas SR. Abordagem multiprofissional do tratamento de feridas. São Paulo: Atheneu; 2009.
3. Lara MO, Junior ACP, Pinto JSF, Vieira NF, Wichr P. Significado da ferida para portadores de úlceras crônicas. *Cogitare enferm.* 2011;16(3):471-7.
4. Domansky RC, Borges EL. Manual para prevenção de lesões de pele: recomendações baseadas em evidências. Rio de Janeiro: Rubio; 2012.
5. Belczak SQ, Gornati VC, Aun R, Sincos IR, Fragoso H. Tratamento de úlcera varicosa dos membros inferiores mediante cirurgia e bota de Unna: uma economia para o sistema de saúde brasileiro. *Einstein.* 2011;3(9):377-85.
6. Herranz MT, Corral JCL, Pérez CF. Prevalência das úlceras vasculares de extremidad inferior. Revisión sistemática. Diseño de una guía terapéutica baseada em critérios etiopatogênicos y anatomoclinicos. *Reduca serie trabajos fin de máster.* 2011;3(2):143-54.
7. Bergan JJ, Schmid-Schönbein GW, Smith PD, Nicolaidis NA, Boisseau MR, Eklof B. Chronic venous disease. *N Engl J Med.* 2006;355(5):488-98.
8. Dantas DV, Torres GV, Dantas RAN. Assistência aos portadores de feridas: caracterização dos protocolos existentes no Brasil. *Cienc. Cuid. saude.* 2011;10(2):366-72.
9. Crozeta K, Meier MJ, Danski MTR, Stocco JGD. Fatores de risco para presença de úlcera por pressão - aplicação da escala de Waterlow. In: 16º Seminário Nacional de Pesquisa em Enfermagem; 2011 Jun. p.1059-62; Campo Grande, Brasil. Campo Grande: ABEEn; 2011.
10. Winter GD. Formation of the scab and the rate of epithelization of superficial wounds in the skin of the young domestic pig. *Nature.* 1962;193:293-4
11. Conselho Federal de Enfermagem. Resolução n. 159, de 19 de abril de 1993. Dispõe sobre a consulta de enfermagem. Rio de Janeiro: COFEN; 1993.
12. Sistema de gerenciamento da tabela de procedimentos, medicamentos do sistema único de saúde. Ministério da Saúde; 2013 [Internet] [acesso 12 de ago 2013]. Disponível: <http://sigtap.datasus.gov.br/tabela-unificada/app/sec/inicio.jsp>
13. Hospital de Clínicas - Universidade Federal do Paraná. HC em números. [Internet] 2014 [acesso em 30 mai 2014]. Disponível: <http://www.hc.ufpr.br/?q=node/83>
14. Santos ICR, Oliveira RG, Silva MA. Desbridamento cirúrgico e a competência legal do enfermeiro. *Texto Contexto Enferm.* 2013;22(1):184-92
15. Oliveira BG, Castro JB, Latini BP. Estudo epidemiológico das práticas adotadas no tratamento de lesões crônicas no ambulatório do hospital universitário Antonio Pedro. In:16º Seminário Nacional de Pesquisa em Enfermagem; 2011 Jun. p.1035-8; Campo Grande, Brasil. Campo Grande: ABEEn; 2011.

16. Benevides JP, Coutinho JFV, Santos MCL, Oliveira MJA, Vasconcelos FF. Avaliação clínica de úlceras de perna em idosos. *Rev Rene* 2012;13(2):300-8.
17. Cavalcante AMRA, Moreira A, Azevedo KB, Lima LR, Coimbra WKAM. Diagnóstico de enfermagem: integridade tissular prejudicada identificado em idosos na Estratégia de Saúde da Família. *Rev. Eletr. Enf. [Internet]* 2010;12(4):727-35 [acesso em 30 out 2013]. Disponível: <http://dx.doi.org/10.5216/ree.v12i4.8425>
18. Barbosa JAG, Campos LMN. Diretrizes para o tratamento da úlcera venosa. *Enfermería Global*. 2010;2(3):1-13.
19. Rogenski NMB, Kurcgant P. Incidência de úlceras por pressão após a implementação de um protocolo de prevenção. *Rev. Latino-Am. Enfermagem*. [Internet] 2012;20(2) [acesso em 12 ago 2013]. Disponível : <http://dx.doi.org/10.1590/S0104-11692012000200016>
20. Evangelista DG, Magalhães ERM, Moretão DIC, Stival MM, Lima LR. Impacto das feridas crônicas na qualidade de vida de usuários da estratégia de saúde da família. *R. Enferm. Cent. O. Min.* 2012;2(2):254-63.