

## Practices of Chronic Wounds Home Care Performed by The Elderly and Their Caregivers

Prácticas de Cuidado Domiciliario de Heridas Crónicas Realizadas por Ancianos y Sus Cuidadores

Práticas de Cuidado Domiciliar de Feridas Crônicas Realizadas por Idosos e Seus Cuidadores

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### Abstract

Regarding the indispensable care for the treatment of chronic wounds, the dependence and the reduction of functional ability can lead to the reduction of care attitudes, just as autonomy can be a contributing factor for the quality of life of the elderly. Thus, the present study aimed to identify the practices of home care of chronic wounds performed by the elderly and their caregivers. The age of the elderly ranged from 60 to 81 years; the majority were male (60%), married (60%), with family caregiver (80%), hospitalized for oncology (40%), independent for activities of daily living (90%) and partially dependent for instrumental activities of daily living (50%). The most common chronic lesions found in the elderly were those located in the lower limbs, related to diabetes and tumors. It was concluded that the elderly

presented functional capacity and family support network profile compatible with the practice of home care; however, regarding the care of chronic injuries, not all steps of care were appropriately performed, suggesting unpreparedness to deal with the adverse situation, which reinforces the need of preparation for discharge from hospital.

**Descriptors:** wounds and injuries, old age assistance, self-care, nursing care.

### Resumen

En cuanto a los cuidados indispensables para el tratamiento de las heridas crónicas, la dependencia y la disminución de la capacidad funcional pueden traer la disminución de actitudes de cuidado, así como la autonomía puede constituir un factor contribuyente para la calidad de vida del anciano. Así, el presente estudio tuvo como

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objetivo identificar las prácticas de cuidado domiciliar de heridas crónicas desempeñadas por ancianos y sus cuidadores. Se trata de un estudio cuantitativo descriptivo, observacional y exploratorio, realizado en la Clínica Médica de un hospital universitario, con 10 ancianos y sus cuidadores, por medio de instrumento previo para la recolección de datos objetivos, con análisis en frecuencia absoluta y porcentual. La edad de los ancianos varía entre 60 y 81 años, siendo la mayoría del sexo masculino (60%), casados (60%), con cuidador familiar (80%), internados por la especialidad de oncología (40%), independientes para actividades de la vida diaria (90%) y dependientes parcialmente para actividades instrumentales de la vida diaria (50%). Las lesiones crónicas más encontradas en los ancianos fueron las localizadas en miembros inferiores, relacionadas con la diabetes y los tumores. Se concluyó que los ancianos presentaron un perfil de capacidad funcional y de red de apoyo familiar compatible con la práctica de cuidados en el domicilio, pero en cuanto a los cuidados con las lesiones crónicas, no todas las etapas del cuidado se realizaron adecuadamente. Esto sugiere haber falta de preparo para manejar la situación adversa, lo que refuerza la necesidad de la preparación para el alta.

**Descriptor:** heridas y traumatismos, asistencia a los ancianos, autocuidado, atención de enfermería.

## Resumo

Com relação aos cuidados indispensáveis para o tratamento de feridas crônicas, a dependência e a diminuição da capacidade funcional podem trazer a diminuição de atitudes de cuidado, assim como a autonomia pode constituir um fator contribuinte para a qualidade de vida do idoso. Assim, o presente estudo teve como objetivo identificar as práticas de cuidado domiciliar de feridas crônicas desempenhadas por idosos e seus cuidadores. Trata-se de um estudo quantitativo descritivo, observacional e exploratório, realizado na Clínica Médica de um hospital universitário, com 10 idosos e seus cuidadores, por meio de instrumento prévio para coleta de dados objetivos, com análise em frequência absoluta e porcentual. A idade dos idosos variou entre 60 e 81 anos, sendo a maioria do sexo masculino (60%), casados (60%), com cuidador familiar (80%), internados pela especialidade de oncologia (40%), independentes para atividades de vida diária (90%) e dependentes parcialmente para atividades instrumentais de vida diária (50%). As lesões crônicas mais encontradas nos idosos foram as localizadas em membros inferiores, relacionadas a diabetes e a tumores. Concluiu-se que os idosos apresentaram um perfil de capacidade funcional e de rede de apoio familiar compatível com a prática de cuidados no domicílio; porém, quanto aos cuidados com as lesões crônicas, nem todas as etapas do cuidado foram desempenhadas

adequadamente, sugerindo um despreparo para lidar com a situação adversa, o que reforça a necessidade do preparo para a alta.

**Descritores:** ferimentos e lesões, assistência a idosos, autocuidado, cuidados de enfermagem.

## Introduction

Skin lesions that affect the elderly are commonly characterized as non-healing wounds because of their chronicity and, in most cases, they will be present for the rest of the person's life. Such wounds may be generally defined as any lesion that leads to the rupture of the skin, that is long-lasting or frequently recurrent, having underlying etiologies that causes delay of the healing process, and that depends on various factors and characteristics, such as age, specific features and organic conditions<sup>1,2</sup>.

In a way that is directly related to the indispensable care for the management of chronic wounds, dependence and decrease of functional ability may lead to a decrease in care attitudes, in the same way that autonomy may constitute a contributing factor for the quality of life of the elderly person. Moreover, age is a factor associated with the loss of functional ability, considering that ageing affects the functioning of all body systems, which leads to frailty and dependence<sup>3</sup>.

Therefore, it is necessary to highlight care and self-care, which can be understood as fundamental human activities that constitute an abstract and complex phenomenon. They

are closely related to healthy ageing, autonomy and self-care as a resource that constitutes a promising alternative for home care with a decrease in complications and even the possibility of wound healing<sup>4</sup>.

Drawing on this context, there is relevance in the concern about home care provided to dependent and semi-dependent patients, a reality that has been approached with increasing frequency. There are various factors, such as high costs of hospitalization and privation of family life, that stimulate the development of adaptative possibilities to maintain the elderly at home. All alterations concerning ageing are of interest in this type of approach in the sense of contributing to a systematized care regardless of where the assistance takes place, considering that the aim of gerontologic care is to keep the elderly person in his/her own setting<sup>3,4</sup>.

## Objectives

The broad objective of this study was to identify practices of self-care and home care of chronic wounds performed by the elderly and their caregivers, drawing on sociodemographic, clinical, geronto-geriatric, and self-care variables.

The specific objectives were to describe the elderly patients' profiles and analyze the main needs and difficulties to perform self-care and care of chronic wounds.

## Literature Review

The skin undergoes various and profound transformation with the advancement of age, which characterizes natural or senescent ageing. Physiological alterations of the integument tissue include: greater cutaneous frailty and lesser skin ability to act as a barrier to external factors; deficient thermoregulation in response to heat, due to a decrease in the number of sweat glands; dryer and rougher skin due to a decrease in the number of sebaceous glands, resulting in a reduced oil production; lower sensitive stimulus; decrease of elasticity; flaccidity; alteration of cell immune response; and reduction of dermis and epidermis thickness. All these changes in the skin of elderly persons make them more susceptible to external factors, which may allow for the development of skin lesions<sup>2,5</sup>.

In the context of care with elderly persons' skin it is crucial to consider the sociodemographic, economic and nutritional variations commonly differentiated among this population. In addition, essential data are those concerning the overall and mental condition, morphological and anthropometrical type, posture, locomotion, facial expression, vital signs, and body mass index. The wound site assessment should consider ethnicity (aiming to identify paleness, uncommon redness, and cyanosis), occupation (since open-air activities are associated with lesions due to photo-ageing), color, humidity, temperature, texture, tumefaction, and the presence of edema<sup>2,5</sup>.

Chronic wounds may directly interfere on the population's quality of life, in particular of elderly persons, which favors high public sector spending. This type of wound is considered a public health problem and deserves exclusive attention from health professionals by means of multidisciplinary care in order to improve the quality of life of the affected elderly. Moreover, skin lesions are associated with the presence of pain, immobility, incapacity, psycho-emotional alterations related to self-esteem and self-image, and social changes resulting from hospitalizations and distance from social interaction<sup>5,6</sup>.

The assessment of a person with a wound is complex and requires critical knowledge of the physiology of wound healing and the factors intervening in this process, bearing in mind that the task is by no means limited to the examination of the lesion. Thus, the health condition assessment uses the clinical examination (anamnesis and physical examination, with a specific moment for the assessment of the lesion itself) and complementary exams. It is relevantly necessary that there is periodicity in performing the assessment, which should be determined by the actual conditions of the wound healing process<sup>7</sup>.

When dealing with an elderly patient, the gerontological approach has gained prominence in the setting of nurse care, which aims to provide a differentiated assistance and

to promote healthy ageing. In addition, this kind of approach considers all alterations due to ageing in order to contribute to a systematized care regardless of where it takes place: at home, an institution or a hospital. The goal of gerontologic care consists of the maintenance of the elderly person at his/her own setting whenever possible<sup>2</sup>.

Considering the relevance of the assessment of elderly persons with wound in an individualized manner and based on specific principles for this age group, it is crucial to bear in mind aspects related to the quality of the delivered assistance. In a way that is closely related to the indispensable care in the management of chronic wounds in elderly persons, dependence and the reduction of functional abilities may lead to a reduction in the attitudes of care, as much as autonomy may be a contributing factor for the improvement of the elderly person's quality of life<sup>3</sup>.

Nevertheless, according to the Home Care Guide of the Brazilian Ministry of Health (2012) the management of wounds in the home setting is one of the most common procedures in Home Care (HC) and it is often fundamental in the care of patients. In this regard, the clinical approach and nurse care intervention, both adjusted to the identified needs, contribute to the safe performance and the progress of patients' and caregivers' abilities. This is crucial for quality of life improvement and the reduction of time needed for wound

healing. These interventions require continuity and recognition of the importance of guidance regarding care performance<sup>8</sup>.

## Methods

This is a quantitative, descriptive, observational, and exploratory study carried out at the Medical Clinic of a university hospital in the city of Brasília, Federal District, Brazil. The population of the study was composed of 10 elderly inpatients at the Medical Clinic in the period of the data collection, from April to October 2015, as a convenience sample. The criteria adopted for the inclusion of the elderly persons were 60 years of age and older and having a chronic wound during the past three months. The exclusion criterion was dementia diagnosis.

Data collection was carried out in one single phase, using a tool prepared by the researchers by which sociodemographic, clinical, and wound care data were collected in interviews with the participants and also in the medical register. The geronto-geriatric data involved the application of two scales that have been validated in the literature: Katz Index of Independence in Activities of Daily Living (ADL) and Lawton Instrumental Activities of Daily Living (IADL) Scale<sup>9,10</sup>. For the data collection, the patients were asked about issues of self-care regarding the chronic wounds. In the nine positive cases, in which the patient him/herself performed the care, he/she was the interviewed; in the one negative case, in which

there was a caregiver in the function of the wound care, this person was interviewed.

Data quantitative analysis was performed drawing on absolute and percentual frequency, with the elaboration of a table built in electronic spreadsheet using computer program Microsoft Excel®. This study was carried out after the consent of participants by means of the Free and Informed Consent Form (FICF) and after approval of the Research Ethics Committee of the Health Sciences School of the institution, under number CAEE: 41460115.2.0000.0030.

## Results

It was observed that in the Medical Clinic service the average age of the elderly patients with chronic wounds was  $70,7 \pm 10,6$  years, with age ranging from 60 to 80 years. Of 10 patients participating in the study, there was a prevalence of males (60%), married (60%), with full or incomplete basic education (50%), retired (80%), having a family caregiver (80%); among those who had a caregiver, 75% were represented by the patient's son or daughter (Table 1).

**Table 1** – Distribution of socio-demographic characteristics of elderly patients with chronic wounds. Brasília, 2015. (n=10)

<b>Variables</b>	<b>n</b>	<b>%</b>	<b>Mean ± Standard Deviation</b>
<b>Age (62 to 93 years)</b>	10	100	70,7 ± 10,6 years
<b>Gender</b>			
Male	6	60	
Female	4	40	
<b>Marital status</b>			
Married/partner	6	60	
Widow/widower	2	20	
Divorced/separated	1	10	
Single	1	10	
<b>Education</b>			
Illiterate	1	10	
Basic education	5	50	
High school	4	40	
Higher education	0	0	
<b>Occupation</b>			
Retired	8	80	

Self-employed	2	20
<b>Provenance</b>		
Federal District	6	60
Goiás	3	60
Minas Gerais	1	10
<b>Birth place</b>		
Goiás	2	20
Minas Gerais	4	40
Others	4	40
<b>Caregiver</b>		
With family caregiver	8	80
Son/daughter	6	75
Spouse/Partner	2	25
Without caregiver	2	20
<b>Total</b>	<b>10</b>	<b>100</b>

The type of skin lesion most often observed among the elderly was that located in the lower limbs, with the diabetic foot observed in two patients and vascular alteration lesions in four patients; tumor lesions from head and neck cancer were present in two patients.

During the interviews, 40% of the patients reported not having received guidance for the care of their lesions. Among the

respondents who reported having received guidance (60%), the nurse was the professional responsible for most cases (83%).

Regarding the geronto-geriatric assessment, it was observed that nine patients (90%) presented independence for ADL, while four (40%) presented independence for IADL and five (50%) presented partial dependence for IADL (Table 2).

**Table 2** – Distribution of the characteristics of functional assessment of elderly patients with chronic wounds. Brasília, 2015. (n=10)

<b>Basic Activities in Daily Living</b>	<b>n</b>	<b>%</b>
Independence	9	90
Partial dependence	0	0
Total dependence	1	10

<b>Instrumental Activities in Daily Living</b>	<b>n</b>	<b>%</b>
Independence	4	40
Partial dependence	5	50
Total dependence	1	10
<b>Total</b>	<b>10</b>	<b>100</b>

Regarding the steps of chronic wound care performed by the elderly patient and/or by the caregiver, it was observed that when considering the totality of the interviewed patients, none of the steps was appropriately performed. The items that were appropriately performed by the majority of the respondents were: prepare and organize the setting; plan the materials that will be used and bring them nearby; dispose of the waste appropriately after the procedure; and wash the hands again.

It was also observed that the steps that were inappropriately performed with higher frequency were: remove the old dressing to

prevent contact with exudate (30%); clean the hands after removing the previous dressing (20%); be placed to prevent leakage of fluid from the skin into the wound to avoid contamination (20%). The steps that were not performed were: open the coverage or material to be used, measuring the size when necessary, avoiding the contact with hands or household utensils (40%); and put away the remaining product appropriately (30%). Steps under description “Not applicable” refer to care that was not possible to be performed according to the type of wound (e.g., allergies on large extensions of skin) (Table 3).

**Table 3** – Description of steps of care performed by elderly patients or family caregivers, with distribution of procedures reported as performed or not performed during the care of chronic wounds. Brasília, 2015. (n=10)

<b>Steps of care</b>	<b>AP</b>		<b>IP</b>		<b>NP</b>		<b>NA</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
1. Cleans the hands before the procedure.	08	80,0	01	10,0	01	10,0	00	0,0
2. Prepares and organizes the setting.	09	90,0	00	0,0	01	10,0	00	0,0
3. Plans the materials to be used and brings them nearby.	09	90,0	00	0,0	01	10,0	00	0,0
4. Removes old dressing avoiding contact with exudate.	06	60,0	03	30,0	01	10,0	00	0,0



5. Disposes of waste appropriately.	08	80,0	01	10,0	01	10,0	00	0,0
6. Cleans the hands again.	07	70,0	02	20,0	01	10,0	00	0,0
7. Be placed to prevent leakage of fluid from the skin into the wound to avoid contamination.	06	60,0	02	20,0	01	10,0	01	10,0
8. Cleanses perilesional skin, when possible, with moisturized gauze and 0.9% physiological saline solution.	07	70,0	01	10,0	01	10,0	01	10,0
9. Cleanses the wound with 0.9% physiological saline solution, avoiding aggressive rubbing to the skin.	08	80,0	00	0,0	01	10,0	01	10,0
10. Opens the coverage or material to be used, measuring the size when necessary, avoiding the contact with hands or household utensils.	04	40,0	00	0,0	04	40,0	02	20,0
11. Applies the product using gauze or spatula, avoiding the contact with hands.	07	70,0	00	0,0	02	20,0	01	10,0
12. Closes the dressing with gauze and bandage or gauze and adhesive/medical tape.	08	80,0	00	0,0	01	10,0	01	10,0
13. Puts away the remaining product appropriately.	06	60,0	00	0,0	03	30,0	01	10,0
14. Disposes of waste appropriately.	09	90,0	00	0,0	01	10,0	00	0,0
15. Cleans the hands again.	09	90,0	00	0,0	00	0,0	01	10,0

Legend: AP = Appropriately Performed; IP = Inappropriately Performed; NP = Not Performed; NA = Not Applicable.

## Discussion

The age group between 60 and 81 years is similar to those groups found in studies carried out with elderly persons presenting a profile of frailty and dependence, which is related to the age structure of contemporary society. This is verified when finding elderly

persons in older stages of life, century old persons, which is a fact that may contribute to the aggravation of chronic diseases and frequent hospitalization<sup>11</sup>. On the other hand, the prevalence of male elderly patients (60%) matches with the previous study<sup>11</sup> but differs from researches regarding the demographic

composition of Brazil, which point to the prevalence of female elderly persons, in the proportion of three men to four women<sup>12</sup>. This divergence may be explained by the fact that male elderly persons, who represent lower life expectancy when compared to women in the same age group, are more prone to hospitalization due to taking less care of their own health, considering the differences in life style regarding alcohol consumption and the lesser demand for health services<sup>11,12</sup>. In addition, it was observed that there is a prevalence of 50% among the participants who declared having complete or incomplete basic education, which corroborates the data of low level education among the elderly in Brazil, as demonstrated in previous studies<sup>12</sup>. Thus, the level of education may be determinant of higher health risks and the decline of functional abilities, which affects the activities of daily living.

Regarding the presence of a family caregiver, it is necessary to consider that 90%

Old age is seen as a stigmatized process and the assistance to elderly persons becomes a highly complex activity. In this context, it is relevant to seek the maintenance of functional ability and autonomy, with the prevention of frailty conditions. Therefore, dependence generates the need of aid, at least for certain activities, and often this help arises within the family<sup>14</sup>. In the daily life of nursing it is verified that family members of elderly

of the elderly patients presented independence for ADL and 50% presented partial dependence for ADL, which has also been demonstrated in a previous study<sup>13</sup>. The IADLs include activities of bathing, dressing, toileting, transferring, continence, and eating, and the scoring consists of attributing one point to independence (performs the activity without supervision, guidance or personal assistance) and zero point to dependence (the activity is performed under supervision, guidance, personal assistance or integral care). On the other hand, the IADLs include activities as using the telephone, locomotion beyond the home, shopping, preparing food, housekeeping, doing manual house work, doing laundry and ironing, handling medications on proper dosage and timetable, and handling finances; the performance without help receives three points, performance with partial help receives two points, and no performance receives one point<sup>10,13</sup>.

patients begin their participation in the care process during hospitalization, and this action will be extended to the home setting, where the family assumes the totality of the care. Previous studies point that there is technical unpreparedness of home caregivers, leading to the inability to take self-care besides taking care of the elderly person, which is a crucial condition in the provision of quality care to the elderly<sup>15</sup>.

Therefore, the nurse has a fundamental role in health education and preventive care. The educational practice aiming to prevent cutaneous lesions should not be limited to the transmission of knowledge; rather, it should consider the interaction between the subject who will learn and the nurse who will teach. For this purpose, the strategies to be adopted could be centered on the person who learns, for instance, by means of the simulation of the care situation<sup>16</sup>. Regarding the management and care of lesions, it was observed that there is unpreparedness to deal with the situation, which impairs the adherence to the treatment and consequently the healing of chronic wounds. Some reasons for the non-adhesion to the treatment may be the forgetfulness of the care to be performed, not understanding the need of care, being unmotivated for the care, and the large number of medicaments to be administered<sup>17</sup>.

Therefore, in order to improve the quality of home care of chronic wounds it is necessary to consider the preparedness of the team, the setting where the care will be performed, the family support, the understanding of the need of specific care, and, as much as possible, the adaptation of the elderly person with functional loss to his/her own setting. However, one of the essential factors for the continuity of the treatment is the availability of material resources, since their lack may impair the adherence to the treatment<sup>8,17</sup>.

### **Final Considerations**

Due to organizational aspects and alterations in the profile of the elderly patients who receive care in the service, influenced by the hospital demand mechanism, it is important to stress in this research the representativity aspect. Anyhow, this study intends to sensitize professionals and scholars in the health field to this issue, as well as to the need of individualization of care and guidance for discharge, to the elderly patient as well as to the caregiver, aiming to favor appropriate care to the needs of the elderly person.

The majority of the elderly patients presented a profile of functional ability and a family support network compatible with the practice of home care. However, it is important to perform periodical assessment by the hospital multidisciplinary team; it is also relevant that the guidance provided to the elderly patient and his/her caregiver is appropriate and according to the best practices of care in the context of hospital discharge. Thus, preparation and health education should permeate the entire hospitalization process.

The need of health education for elderly persons and their caregivers, in the various situations of care, is well documented in the literature. Therefore, in the context of the elderly with chronic lesions it is crucial to understand the importance of self-care and the use of appropriate techniques and materials. Thus, the goal of care consists of providing the

means for the best recovery, with the highest probability of wound healing and, above all, favoring the quality of life and the return of the elderly person with chronic conditions to the independence of ADLs and IADLs.

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Recebido: 01.04.2017

Revisado: 04.05.2017

Aprovado: 11.09.2017

**Participação dos autores:**

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