

MAPPING NURSING DIAGNOSIS IN PEOPLE WITH DIFFICULT-HEALING WOUNDS

MAPEO DEL DIAGNÓSTICO DE ENFERMERÍA EN PERSONAS CON HERIDAS DE DIFÍCIL CURACIÓN

MAPEAMENTO DE DIAGNÓSTICOS DE ENFERMAGEM EM PESSOAS COM FERIDAS DE DIFÍCIL CICATRIZAÇÃO

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ABSTRACT

Introduction: Wounds that are difficult to heal constitute a serious public health problem, due to the great socioeconomic impact and damage caused to physical integrity resulting from these injuries, generally associated with chronic diseases. **Objective:** to map the nursing diagnoses identified by nurses when monitoring people with difficult-to-heal wounds undergoing care at a basic health unit in Macapá-AP. **Method:** Descriptive study with a quantitative approach carried out at the Basic Health Unit of the Federal University of Amapá with people with chronic wounds, whose data collection was carried out during the nursing consultation. **Results:** The sample for this study consisted of 17 people with chronic wounds, the majority of whom were male, with an average age of 51.5±11.6 years and predominantly mixed race. 52.9% are diabetic and the main chronic wound was diabetic foot ulcers. 19 different nursing diagnoses were mapped, with the diagnosis of impaired tissue integrity having the highest incidence. **Conclusion:** the mapping allowed the identification of the main nursing diagnoses in patients with wounds, supporting the potential for the development of clinical protocols that improve nursing practice. **Keywords:** Wounds; Nursing Diagnosis; Chronic Disease.

RESUMEN

Introducción: Las heridas de difícil curación constituyen un grave problema de salud pública, debido al gran impacto socioeconómico y daño a la integridad física resultante de estas lesiones, generalmente asociadas a enfermedades crónicas. **Objetivo:** mapear los diagnósticos de enfermería identificados por enfermeros en el acompañamiento de personas con heridas de difícil curación atendidas en una unidad básica de salud de Macapá-AP. **Método:** Estudio descriptivo con enfoque cuantitativo realizado en la Unidad Básica de Salud de la Universidad Federal de Amapá con personas con heridas crónicas, cuya recolección de datos se realizó durante la consulta de enfermería. **Resultados:** La muestra de este estudio estuvo compuesta por 17 personas con heridas crónicas, la mayoría del sexo masculino, con una edad promedio de 51,5±11,6 años y predominantemente mestizo. El 52,9% son diabéticos y la principal herida crónica fueron las úlceras del pie diabético. Se mapearon 19 diagnósticos de enfermería diferentes, siendo el diagnóstico de integridad tisular deteriorada el de mayor incidencia. **Conclusión:** el mapeo permitió identificar los principales diagnósticos de enfermería en pacientes con heridas, apoyando el potencial para el desarrollo de protocolos clínicos que mejoren la práctica de enfermería.

Palabras clave: Heridas; Diagnóstico de Enfermería; Enfermedad Crónica.

RESUMO

Introdução: As feridas de difícil cicatrização constituem um sério problema de saúde pública, devido ao grande impacto socioeconômico e do prejuízo causado a integridade física decorrente destas lesões, geralmente, associadas a doenças crônicas. **Objetivo:** mapear os diagnósticos de enfermagem identificados pelo enfermeiro no acompanhamento de pessoas com feridas de difícil cicatrização em seguimento de cuidados em uma unidade básica de saúde em Macapá-AP. **Método:** Estudo descritivo com abordagem quantitativa realizado na Unidade Básica de Saúde da Universidade Federal do Amapá com pessoas com feridas crônicas, cuja coleta de dados foi realizada durante a consulta de enfermagem. **Resultados:** A amostra deste estudo foi constituída por 17 pessoas com feridas crônicas, sendo a maioria do sexo masculino com idade média de 51,5±11,6 anos e predominantemente pardos. 52,9% são diabéticos e a principal ferida crônica foi a úlcera de pé diabético. Foram mapeados 19 diagnósticos de enfermagem diferentes sendo o diagnóstico de integridade tissular prejudicada foi de maior incidência. **Conclusão:** o mapeamento permitiu identificar os principais diagnósticos de enfermagem em pacientes com feridas, fundamentando o potencial para o desenvolvimento de protocolos clínicos que aprimoram a prática de enfermagem.

Palavras-chave: Feridas; Diagnóstico de Enfermagem; Doença Crônica.



INTRODUCTION

Chronic wounds are a serious public health problem because they harm people's physical and emotional integrity and quality of life. Complex wounds (CF) are prevalent according to conditions and etiologies, such as ulcers resulting from arterial disease, venous insufficiency, mixed ulcers, pressure ulcers, and ulcers resulting from metabolic diseases, such as diabetes mellitus, whose common characteristic is poor perfusion⁽¹⁾. CF is defined as any wound that does not heal within six weeks with properly guided therapy. The line of care for chronic wounds should not only be based on practice focused on wound treatment, but also follow a treatment plan that encompasses a triad: assessment of the patient, the etiology of the chronic wound, and local treatment, considering the patient as a person⁽²⁾. Therefore, a chronic wound requires specific daily care and subsequent recording, in order to verify the evolution during the healing process.

In order to improve patient care in the health network, processes were created for nursing services, thus assisting activities in stages; this process is called Nursing Care Systematization⁽³⁾. Thus, one of the SAE processes is based on identifying nursing diagnoses aimed at the individual needs of each patient. The nursing diagnosis profile added to the standardized dialect facilitates the management of patient resources in addition to supporting nursing interventions. Based on the definition of scientific facts in the field of nursing, the objective is to provide continuing

education, professional identity, contribute to the management of resources and people, in addition to supporting appropriate nursing interventions⁽⁴⁾.

In this way, identifying the main nursing diagnoses presented by people with CF being followed in a line of care can support nursing care based on individual needs with the elaboration of a unique therapeutic plan, which would help the nursing professional to conduct interventions in a timely manner and monitor the evolution of the clinical condition through clinical judgment⁽⁵⁾.

To this end, it is necessary to use a classification system that standardizes nursing diagnoses, such as the North American Nursing Diagnosis Association Classification 2021-2023 (NANDA), which brings together 267 nursing diagnoses reviewed and approved by the Diagnostic Development Committee (DDC). According to NANDA (2021), the initial assessment of the patient involves collecting subjective and objective data and a review and analysis of information from the patient's history. In this context, nursing consultation and follow-up of people with CF are opportune moments to identify the most relevant nursing diagnoses for each patient and the similarities between them, thus contributing to the planning of the care provided to the patient.

In view of this, this study aims to map the nursing diagnoses identified by nurses in the follow-up of people with difficult-to-heal wounds in follow-up care at a basic health unit in Macapá-AP.



METHODS

This is a descriptive study with a quantitative approach. The sample was non-probabilistic for convenience, that is, non-random, of patients being followed up in the line of care for people with chronic wounds at the Basic Health Unit (UBS) of the Federal University of Amapá (UNIFAP) and treated by the chronic wound management team (TIGESFC). The eligibility criteria were: people with difficult-to-heal wounds being followed up in the line of care for wounds at the UBS/UNIFAP, over 18 years old, of both sexes and who were able to understand and answer the questions, were physically capable of participating in the nursing consultation, and consented to participate in the study. This study was authorized by the management of the basic health unit and was approved by the Research Ethics Committee of the Federal University of Amapá under opinion No. 4,280,682. Data collection was carried out from March to May 2023, as follows: first, contact was made with people with complex wounds treated by TIGESFC and an invitation was made to participate in the study. If accepted, a nursing consultation was scheduled in which the data collection instrument consisting of patient identification (initials of name, age, sex, and

ethnicity), clinical data (comorbidities and type of wound), anamnesis form, and physical examination was applied. Subsequently, based on clinical judgment, the diagnostic titles were mapped by cross-mapping the terms and expressions with the defining characteristics, related factors, risk factors, and nursing diagnosis titles approved by the NANDA-I classification.

The collected data were tabulated using Microsoft Excel for Windows 2016 ® and analyzed with the aid of the statistical software Statistica® 9.0, establishing absolute and relative frequency measures for all analyzed data.

RESULTS

The study consisted of a sample of 17 people with CF who were being followed up in the line of care for people with chronic wounds at UBS/UNIFAP. The results will be described in sociodemographic variables, clinical variables and the prevalence of nursing diagnoses.

The sociodemographic characteristics analyzed in this study were sex, age and ethnicity, which are described in absolute and relative frequency in Table 1.

Table 1 - Sociodemographic variables of patients with difficult-to-heal wounds

Variable	Category	N	%
Gender	Female	4	23,6%
	Male	13	76,4%



Variable	Category	N	%
Age Range	30-40 years old	4	23,5%
	41-50 years old	4	23,5%
	51-60 years old	5	29,5%
	61-70 years old	4	23,5%
Ethnicity	White	2	11,7%
	Brown	10	59%
	Black	2	11,7%
	Not Declared	3	17,6%

Source: The authors, 2024.

Of the 17 people with chronic wounds who participated in this study, the prevalence of males (76.4%) was noted, with the predominant population undergoing treatment for difficult-to-heal wounds. Regarding the age group, the average age attended was 51.5 ± 11.6 years, with a lower limit of 31 years and an upper limit of 70 years, with a predominance of the 51-60 year-old population (29.5%), and a more homogeneous distribution for the other age groups of 30-40

years, 41-50 years and 61-70 years, around 23.5%.

As for the ethnicity variable, there was a prevalence of mixed race patients (59%), in addition, there was a significant percentage of undeclared patients (17.6%). In another point, the results obtained from the clinical variables stand out, being delimited by the existing comorbidity and the type of wound. Table 2 presents these data.

Table 2 - Clinical variables of patients with difficult-to-heal wounds.

Variable	Category	N	%
COMORBIDITY	DM2	9	52,9%
	DM2+HAS	6	35,2%
	VENOUS INS.	1	5,8%
TYPE OF WOUND	UPD	14	82,3%
	MIXED ULCER	1	5,8%
	UV	1	5,8%
	TRAUMA	1	5,8%

* DM2: Type 2 Diabetes Mellitus; SAH: Systemic arterial hypertension; UPD: Diabetic foot ulcer; UV: Venous ulcer.

Source: The authors, 2024.



Regarding comorbidity, there was a higher prevalence of people with type 2 Diabetes Mellitus (52.9%), associated with a metabolic disorder that can be characterized by hyperglycemia and deficit in carbohydrate metabolism. In addition, there was an association of two chronic conditions, DM and hypertension, with 35.2%. The results found in Table 2 highlight a lower percentage compared to the other comorbidities presented in the study, approximately 5.8% of the total number of patients mapped.

In Diabetic Foot Ulcers (DFU), it was identified that 82.3% of the individuals evaluated had been diagnosed with this type of wound. Mixed ulcers demonstrated one of the lowest incidences when it comes to the type of wound, with 5.8% of the known etiologies identified. During the study mapping, it was identified that

only 5.8% of the patients were affected by this chronic wound.

Subsequent to mapping nursing diagnoses, it is pertinent to develop some of them, based on their frequency and their relationship with difficult-to-heal wounds. Thus, after cross-mapping the terms and expressions collected during the anamnesis and physical examination of people with chronic wounds, the presence of defining characteristics and related factors that supported the titles of nursing diagnoses contained in NANDA-I was verified. Thus, in the sample studied, it was possible to identify a total of 68 nursing diagnoses in patients with chronic wounds, with 19 different diagnoses, which are listed in Table I.

Table I - Nursing diagnoses found in people with chronic wounds

	Nursing diagnosis	N	(%)
1	Impaired skin integrity	17	25
2	Risk of infection	7	10,29412
3	Impaired comfort	5	7,352941
4	Impaired walking	5	7,352941
5	Ineffective peripheral tissue perfusion	4	5,882353
6	Risk of unstable blood glucose	4	5,882353



7	Unbalanced nutrition	4	5,882353
8	Ineffective self-management of health	4	5,882353
9	Deficient knowledge	3	4,411765
10	Impaired physical mobility	3	4,411765
11	Social isolation	2	2,941176
12	Body Image Disturbance	2	2,941176
13	Readiness to improve health literacy	2	2,941176
14	Readiness for improved health self-management	1	1,470588
15	Situational risk of low self-esteem	1	1,470588
16	Readiness for enhanced self-management of health	1	1,470588
17	Hopelessness	1	1,470588
18	Chronic pain	1	1,470588
19	Risk for frail elderly syndrome	1	1,470588
	TOTAL	68	100

In Table I, the most frequent ND is “impaired tissue integrity” with a percentage of 25%. Consequently, the ND “risk for infection” is presented with an index of 10.29412%. Furthermore, the diagnosis of “ineffective

peripheral tissue perfusion” was obtained with a frequency of 5.882353%, listing the diagnoses “impaired comfort” and “impaired walking”, both with a frequency of 7.352941%.



In addition, with a frequency of 5.882353%, the diagnosis of risk of “unstable glycemia” was found, and one of the diagnoses present and that influences difficult-to-heal wounds is “imbalanced nutrition” with a frequency of 5.882353%.

Other diagnoses present in this study, but with less frequency: “Ineffective health self-management” (5.882353%); “Deficient knowledge” (4.411765%); “Impaired physical mobility” (4.411765%); “social isolation” and “body image disturbance” (2.941176%); “Readiness to improve health literacy” (2.941176%).

Finally, the diagnoses of “risk for situational low self-esteem”, “hopelessness”, “chronic pain”, “risk for frail elderly syndrome”, “readiness for improved health self-management” and “readiness for improved health self-management” appear with a frequency of 1.47%.

DISCUSSION

Epidemiological data show that for every three people who die in Brazil, two are male, accounting for approximately 60% of deaths in the country. From this, it can be inferred that the process of illness in men causes more complications than in women, since the search for preventive measures in basic health units is predominantly carried out by women. Therefore, the search for care by the male class mostly arises from the onset of pathology⁽⁶⁾.

Table 1 shows the presence of young adults, full adults and elderly people, i.e. chronic

wounds are present in all age groups of adult life⁽⁷⁾. However, according to data from the National Health Survey conducted by IBGE in 2013, 40% of the Brazilian adult population has at least one chronic disease, the most recurrent being, respectively, diabetes, cardiovascular diseases, cancers and circulatory pathologies⁽⁸⁾. Based on research and databases, it is possible to observe an increase in the number of people becoming ill, with an increasingly younger class being affected by chronic diseases and, consequently, by injuries that are difficult to heal.

In the northern region, there is a prevalence of self-declared brown ethnicity; according to the IBGE, in 2021, the percentage of the brown population in the northern region of the country was 73.4% ⁽⁹⁾. Care for people with wounds that are difficult to heal is not limited to the physiological aspects of the wound; nurses must direct their attention to the individual as a whole. Therefore, it is necessary for professionals to seek to use techniques that can support adequate care. In view of this, outlining the profile of the population that seeks health services helps nurses to set goals and consider strategies for health promotion, including preventive measures and adherence to treatment and its continuity.

Thus, it can be said that the prevalence of DM in Central and South American countries was estimated at 26.4 million people and projected to reach 40 million by 2030. In developing countries, this increase will occur in all age groups, with the prevalence tripling in the



45 to 64 age group and doubling in the 20 to 44 and over 65 age groups⁽¹⁰⁾. Therefore, Brazil, being a developing country, tends to have an increasing number of people with DM in all age groups, confirming its prevalence in this study.

Considering that the emergence of DM has SAH as a risk factor⁽¹¹⁾, it is therefore understood that individuals with systemic arterial hypertension have a greater risk of developing diabetes mellitus.

Venous insufficiency (VI) is defined as a dysfunction of the venous system caused by valve problems related or not to obstruction of venous blood flow. Acute venous insufficiency can cause problems in the superficial venous system or the deep venous system or both. It can also be the result of a congenital or acquired disorder⁽¹²⁾.

Despite the low percentage, it is estimated that 5 to 30% of the adult population presents symptoms or signs of VI, which is considered a serious public health problem⁽¹³⁾.

There are several known etiologies of lower limb ulcers, with venous origin being the most frequent in 70% of cases, followed by arterial origin in 10% to 20% of cases and mixed etiology in 10 to 15% of cases⁽¹⁴⁾.

Diabetic foot involves a series of pathophysiological processes ranging from infection to ulceration with subsequent deep tissue destruction, neurological abnormalities and/or vascular involvement that causes suffering, disability and absence from work for the individual⁽¹⁵⁾. However, a study conducted in Family Health Units evaluated 47 people with

chronic wounds and only 8.5% of this number had diabetic foot ulcers⁽⁴⁾.

It is known that mixed ulcers are caused by a combination of chronic venous hypertension and peripheral arterial disease; ulceration has mixed characteristics because it is caused by venous and arterial diseases⁽¹⁶⁾.

In Brazil, isolated studies such as one conducted in Minas Gerais, southeastern Brazil, observed that mixed ulcers have a lower prevalence than the others, demonstrating approximately 2% of the total of 57 people, corroborating the findings of this study⁽¹⁷⁾.

Venous ulcers (VU) are defined as chronic lesions that develop between the ankle region and the middle third of the leg due to persistent venous hypertension. This condition results in reduced diffusion of nutrients and oxygen, creating a favorable microenvironment for the emergence of these lesions⁽¹⁸⁾. However, a study found that 52% of the patients evaluated in the study were affected by venous ulcers⁽¹⁷⁾.

Physical trauma is considered a risk factor for those with chronic wounds and is associated with other clinical complications that hinder wound healing⁽¹⁹⁾. The results in Table 2 suggest that only 5.8% of the individuals had the type of wound based on some trauma. Another study analyzed patients from an outpatient clinic in Chapecó-SC, and only 13% of them had some type of wound based on traumatic injury⁽²⁰⁾. However, another study evaluated 27 patients in a health unit in Goiás, and it was found that 97% of the wounds were related to trauma⁽²¹⁾.



The use of specific terminology in nursing, through the classification of Nursing Diagnoses of NANDA International (NANDA-I), is essential to develop care for individuals with CF⁽²²⁾.

One of the main functions of the skin is to cover the body, and it constitutes an integral defensive barrier that isolates the internal structures from the external environment⁽²³⁾. When this integrity is discontinued, imbalances and health problems can occur, and consequently, wounds. Therefore, this diagnosis was identified in all participants, since they are being monitored. According to NANDA, one of the associated conditions that were characteristic of the research were metabolic diseases and cardiovascular diseases, as previously mentioned, diabetes mellitus and systemic arterial hypertension. DM is the main cause of the emergence of diabetic foot ulcers, and the lack of control of blood glucose levels affects circulation, which contributes to the formation of ulcers⁽²⁴⁾.

According to NANDA, the risk of infection is characterized by the susceptibility of invasion and multiplication of pathogenic organisms, which can compromise health. One of the risk factors associated with this diagnosis is the integrity of the broken skin itself, facilitating the entry of microorganisms and bacteria, also associated with increased environmental exposure to pathogens. With the associated conditions, the presence of a suppressed inflammatory response was observed. Chronic diseases bring consequences, one of

which is secondary immunodeficiency, which affects the immune system and consequently increases vulnerability to infections⁽²⁵⁾.

Ineffective peripheral tissue perfusion can be understood as the reduction of blood circulation to the periphery. In the context of wounds, the absence of circulation or its impairment in the peripheral region of the body can cause health risks, since the peripheral zone is where wounds are most affected. It was possible to perceive delayed peripheral wound healing, edema and decreased peripheral pulses as defining characteristics, with inadequate knowledge about the disease as a related factor, as well as a sedentary lifestyle. However, the associated conditions present were diabetes mellitus and hypertension. The lack of control of blood glucose levels affects circulation, which contributes to the formation of ulcers. The areas at greatest risk are the toes, the grooves between them, and the medial and distal regions⁽²⁴⁾.

Impaired walking, on the other hand, has as defining characteristics difficulty in walking the necessary distances and difficulty climbing stairs, with factors related to pain, insufficient muscle strength, and in some patients obesity. Associated conditions include impaired postural balance. For impaired comfort, anxiety, discomfort with the situation, expression of discomfort, and irritable mood are observed as defining characteristics, as well as associated conditions related to the treatment regimen and symptoms related to the disease. Foot ulcers are documented as precedents in approximately 85% of all diabetic amputations. In most cases,



amputation had to be performed due to the combination of deep infection and ischemia⁽²⁴⁾. In view of this, it is observed that in this context, these two nursing diagnoses emerge from an amputation, which can cause both difficulty in walking and impair the comfort of that patient.

Diabetes was the most frequent comorbidity, and most patients being monitored have this risk, which can be defined as inadequate adherence to the treatment regimen or inadequate self-management of diabetes, with diabetes itself as an associated condition. Thus, in this scenario, it is possible to observe the variation of serum glucose levels in relation to the normal range. One of the factors that delay the healing of chronic wounds is the non-physiological inflammatory response. This type of wound usually stagnates in the inflammatory phase, delaying the formation of granulation tissue. Hyperglycemia is one of the causes that contributes to the return of the inflammatory response and thus impairs the functions of neutrophils, macrophages and lymphocytes⁽²⁶⁾.

The defining characteristics of an unbalanced nutrition are delayed wound healing and factors related to inadequate food supply. The assessment of a wound and its healing require a range of factors to be assessed, one of which is nutritional status, given that it is on the list of systemic factors that affect the body and hinder healing. Proteins are essential for all aspects of healing, from collagen synthesis and epidermal proliferation to neovascularization⁽²⁷⁾.

Furthermore, ineffective self-management of health is defined as the

exacerbation of disease symptoms and sequelae of the disease as defining characteristics, and factors related to inadequate commitment to an action plan and consequently non-acceptance of a condition. In these cases, clients enter into denial, especially in relation to amputations. Deficient knowledge, with imprecise statements on a subject, inappropriate behavior and imprecise following of instructions, related to inadequate or incorrect information. Impaired physical mobility involves altered gait, uncoordinated or slow movements followed by an expression of discomfort, related to decreased muscle strength and decreased muscle control and associated conditions such as altered integrity of bone structures and altered metabolism. In addition, isolation can occur through this image disorder, related to a missing body part that can apparently alter physical appearance, with factors related to low self-esteem, inadequate social support and impaired physical mobility, associated with chronic pain, wounds and injuries and the treatment regimen. For Readiness to improve health literacy, its defining characteristic is based on the desire to improve the understanding of health information.

Among the less frequent diagnoses, it is worth highlighting that the diagnosis of risk for situational low self-esteem is related to the diagnosis of body image disorder. Chronic pain was characterized by intense reports of pain related to social isolation and fatigue, with the condition associated with soft tissue injuries. The risk of frail elderly syndrome is associated with inadequate social support, decreased muscle



strength and impaired postural balance linked to associated conditions of chronic disease. Furthermore, it is important to emphasize the presence of diagnoses in the health promotion domain that demonstrate that the person is maintaining a satisfactory pattern of symptom management, therapeutic regimen and physical consequences characterized by an expression of a desire to improve commitment to follow-up care.

CONCLUSIONS

The objective of the study was achieved, and it was possible to map the nursing diagnoses of people with difficult-to-heal wounds. The results indicated a predominance of males, with an average age of 51.5 years, predominantly of mixed ethnicity. The majority were diabetic and the main chronic wound was the diabetic foot ulcer.

The data collection allowed for the cross-mapping of terms and expressions identified during the anamnesis and physical examination with the standardized classification of nursing diagnoses of NANDA-I. In total, 68 nursing diagnoses were identified, 19 of which were different.

It is noteworthy that a greater number of nursing diagnoses related to impaired skin integrity was observed, as well as infection risks in different domains of NANDA-I and also a link between comprehensive management in the provision of care based on clinical, systematic protocols, evidence and records, promoting a nursing approach that will result in

improvements in the quality of life of individuals and professional prestige in the promotion of health products and technologies, which will contribute to nursing practice.

REFERENCES

1. Vieira CPB, Araújo TME de. Prevalence and factors associated with chronic wounds in older adults in primary care. *Rev esc enferm USP* [Internet]. 2018 [citado 2024 Ago 2];52:e03415. Disponível em: <https://doi.org/10.1590/S1980-220X2017051303415>.
2. Justiniano A. Feridas crônicas: fisiopatologia e tratamento. *Cadernos de saúde* [Internet]. 1 Dez. 2010 [citado 2024 Ago 2];3(Especial):69-5. Disponível em: <https://revistas.ucp.pt/index.php/cadernosdesaude/article/view/3015>.
3. Prearo M, Fontes CMB. Sistematização da assistência de enfermagem na sala de recuperação pós-anestésica: revisão integrativa. *Enferm Foco* [Internet]. 2019 [citado 2024 Ago 2];10(7). Disponível em: <https://doi.org/10.21675/2357-707X.2019.v10.n7.2470>.
4. Silva ÁLDA, et al. Fatores preditores ao agravamento de feridas crônicas. *Rev Rene* [Internet]. 2020 [citado 2024 Ago 2];21. Disponível em: <http://periodicos.ufc.br/rene/article/view/43615/161804>.
5. De Almeida Nogueira G, et al. Diagnósticos, resultados e intervenções de enfermagem na assistência ambulatorial ao paciente com úlcera venosa. *Rev Cubana Enferm* [Internet]. 2020 Jun [citado 2024 Ago 2];36(2). Disponível em: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03192020000200006&lng=es&nrm=iso.
6. Oliveira MM, Daher DV, Silva JLL da, Andrade SSC de A. Men's health in question: seeking assistance in primary health care. *Ciênc saúde coletiva* [Internet]. 2015 Jan [citado 2024 Ago 2];20(1):273–8. Disponível em: <https://doi.org/10.1590/1413-81232014201.21732013>.



7. Santos BS, Antunes DD. Vida adulta, processos motivacionais e diversidade. Educação (Porto Alegre, Online) [Internet]. 19 jun 2007 [citado 2024 Ago 2];30(1). Disponível em: <https://revistaseletronicas.pucrs.br/ojs/index.php/faced/article/view/544>.
8. Instituto Brasileiro de Geografia e Estatística. Pesquisa nacional de saúde 2013: percepção do estado de saúde, estilo de vida e doenças crônicas [Internet]. Rio de Janeiro: IBGE; 2013. [citado 2024 Ago 2]. Disponível em: <https://saudeamanha.fiocruz.br/wp-content/uploads/2017/03/Pesquisa-Nacional-de-Sau%CC%81de-2013-percepc%CC%A7a%CC%83o-do-estado-de-sau%CC%81de-estilos-de-vida-e-doenc%CC%A7as-cro%CC%82nicas.pdf>.
9. Instituto Brasileiro de Geografia e Estatística. Cor ou raça [Internet]. Rio de Janeiro: Educa IBGE; 2021. [citado 2024 Ago 2]. Disponível em: <https://educa.ibge.gov.br/jovens/conheca-o-brasil/populacao/18319-cor-ou-raca.html/>.
10. International Diabetes Federation. Diabetes atlas update 2012: regional & country factsheets. Disponível em: <https://www.idf.org/>.
11. Ministério da Saúde (BR). Cadernos de atenção básica: estratégias para o cuidado da pessoa com doença crônica: diabetes mellitus (n. 36) [Internet]. Brasília-DF: Ministério da Saúde; 2013. [citado 2024 Ago 2] Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/estrategias_cuidado_pessoa_diabetes_mellitus_cab36.pdf.
12. Lima RCM, et al. Efeitos do fortalecimento muscular da panturrilha na hemodinâmica venosa e na qualidade de vida em um portador de insuficiência venosa crônica. J Vasc Bras. 2020;1(3):219-26. Disponível em: <https://jvascbras.org/article/5e221b2f0e8825d6236d0101/pdf/jvb-1-3-219.pdf>.
13. Silva KLS, Figueiredo EAB, Lopes CP, Vianna MVA, Lima VP, Figueiredo PHS, et al. The impact of exercise training on calf pump function, muscle strength, ankle range of motion, and health-related quality of life in patients with chronic venous insufficiency at different stages of severity: a systematic review. J vasc bras [Internet]. 2021 [citado 2024 Ago 2];20:e20200125. Disponível em: <https://doi.org/10.1590/1677-5449.200125>.
14. Fonseca C, Franco T, Ramos A, Silva C. A pessoa com úlcera de perna, intervenção estruturada dos cuidados de enfermagem: revisão sistemática da literatura. Rev esc enferm USP [Internet]. 2012 Apr [citado 2024 Ago 2];46(2):480-6. Disponível em: <https://doi.org/10.1590/S0080-62342012000200029>.
15. Oliveira TMG, Santos SSS, Araújo AHIM, Bezerra MLR. Perfil assistencial de enfermagem ao paciente portador de pé diabético: revisão integrativa. Rev. Enferm. Atual In Derme [Internet]. 10 dez 2020 [citado 2024 Ago 2];94(32):e-020078. Disponível em: <https://teste.revistaenfermagematual.com/index.php/revista/article/view/781>.
16. Flôres GC, et al. Sistematização da assistência de enfermagem em paciente portador de úlcera mista em membro inferior direito: um relato de experiência. In: Congresso Internacional em Saúde; 2019. Disponível em: <https://www.publicacoeseventos.unijui.edu.br/index.php/conintsau/article/view/11291>.
17. Ferraz GEP. Prevalência de úlceras de membros inferiores em um município do interior de Minas Gerais [monografia]. 2019. Monografia apresentada ao curso de Especialização em Enfermagem em Estomaterapia, Universidade Federal de Minas Gerais, Escola de Enfermagem. Disponível em: <https://repositorio.ufmg.br/bitstream/1843/31111/1/Gleydiene%20FINAL%20%281%29.doc.pdf>.
18. Madeira ACM, Oliveira LSN, Brandão ES. Self-care measures to prevent venous ulcer recurrence: a scoping review protocol. Online Braz J Nurs [Internet]. 2023 [citado 2024 Ago 2];22 Suppl 1:e20236613. Disponível em: <https://doi.org/10.17665/1676-4285.20236613>.
19. da Silva MT, Kremer TS, da Costa SP, Ruiz LS, Gandra RF, Auler ME. Os desafios na conduta terapêutica em pacientes acometidos com feridas crônicas. Arq. Ciênc. Saúde Unipar [Internet]. 31 mar 2023 [citado 2024 Ago 2];27(3):1242-68. Disponível em: <https://revistas.unipar.br/index.php/saude/article/view/9426>.



20. Oliveira AC, Rocha DM, Bezerra SMG, Andrade EMLR, Santos AMR dos, Nogueira LT. Qualidade de vida de pessoas com feridas crônicas. *Acta paul enferm* [Internet]. 2019 Mar [citado 2024 Ago 2];32(2):194–201. Disponível em: <https://doi.org/10.1590/1982-0194201900027>.

21. 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.* [Internet]. 24 out 2012 [citado 2024 Ago 13]. Disponível em: <http://www.seer.ufsj.edu.br/recom/article/view/15>.

22. Herdman TH, Kamitsuru S. *International nursing diagnoses: definitions & classification, 2018-2020*. 11th ed. Oxford: Wiley-Blackwell; 2018.

23. Domansky RC, Borges EL. *Manual para prevenção de lesões de pele. Recomendações Baseadas em Evidências*. Rio de Janeiro: Editora Rubio; 2012.

24. Brasil. Secretaria de Saúde do Distrito Federal. *Consenso internacional sobre pé diabético*. Brasília, DF: Secretaria de Saúde do Distrito Federal; 2019 [citado 2023 Maio 19]. Disponível em: <https://www.saude.ba.gov.br/wp-content/uploads/2020/12/CONSENSO-INTERNACIONAL-DE-PE-DIABETICO-2019.pdf>.

25. Condino-Neto A. Susceptibilidade a infecções: imaturidade imunológica ou imunodeficiência? *Rev. Med. (São Paulo)* [Internet]. 22 jun 2014 [citado 2024 Ago 3];93(2):78-82. Disponível em: <https://www.revistas.usp.br/revistadc/article/view/97325>.

26. Ladeira PRS, Isaac C, Paggiaro AO, Hosaka EM, Ferreira MC. Úlceras nos membros inferiores de pacientes diabéticos: mecanismos moleculares e celulares. *Rev. Med. (São Paulo)* [Internet]. 11 set 2011 [citado 2024 Ago 3];90(3):122-7. Disponível em: <https://www.revistas.usp.br/revistadc/article/view/58903>.

27. Santos JB, et al. Avaliação e tratamento de feridas: orientações aos profissionais de saúde.

<https://doi.org/10.31011/reaid-2025-v.99-n.1-art.2354> *Rev Enferm Atual In Derme* 2025;99(1): e025022

Porto Alegre: Hospital de Clínicas de Porto Alegre; 2011 [citado 2023 Maio 19]. Disponível em:

<https://lume.ufrgs.br/bitstream/handle/10183/34755/000790228.pdf?sequence=1&isAllowed=y>.

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