

# Management of Diabetic Peripheral Neuropathy in Primary Health Care: Experience Report

Manejo da Neuropatia Periférica Diabética na Atenção Primária à Saúde: Relato de Experiência  
Manejo de la Neuropatía Periférica Diabética en la Atención Primaria de Salud: Relato de Experiencia

## RESUMO

**Objetivo:** Descrever a assistência de enfermagem no manejo da neuropatia periférica diabética na Atenção Primária à Saúde. **Método:** Trata-se de um relato de experiência desenvolvido em unidade de Atenção Primária, fundamentado no Processo de Enfermagem. A intervenção ocorreu ao longo de quatro meses do início de abril até início de agosto de 2025, aproximadamente 120 dias e incluiu avaliação clínica sistematizada, identificação de diagnósticos de enfermagem, elaboração de plano de cuidados individualizado e ações educativas voltadas ao autocuidado e à prevenção de complicações relacionadas ao pé diabético. **Resultados:** As intervenções resultaram na cicatrização da lesão, retomada regular da insulino terapia e melhora da adesão ao autocuidado. **Conclusão:** O manejo da neuropatia periférica diabética na Atenção Primária, baseado na Sistematização da Assistência de Enfermagem e na construção de vínculo, mostrou-se eficaz para qualificar o cuidado, favorecer a adesão terapêutica e prevenir complicações e incapacidades.

**DESCRIPTORIOS:** Atenção Primária à Saúde; Pé Diabético; Cuidados de Enfermagem; Autocuidado; Educação em Saúde.

## ABSTRACT

**Objective:** To describe nursing care in the management of diabetic peripheral neuropathy in Primary Health Care. **Method:** This is an experience report developed in a Primary Care unit, based on the Nursing Process. The intervention took place over four months from early April to early August 2025, approximately 120 days, and included systematic clinical assessment, identification of nursing diagnoses, development of an individualized care plan, and educational actions focused on self-care and prevention of complications related to diabetic foot. **Results:** The interventions resulted in wound healing, resumption of regular insulin therapy, and improved adherence to self-care. **Conclusion:** The management of diabetic peripheral neuropathy in Primary Care, based on Nursing Care Systematization and the establishment of a therapeutic bond, proved effective in qualifying care, promoting treatment adherence, and preventing complications and disabilities.

**DESCRIPTORS:** Primary Health Care; Diabetic Foot; Nursing Care; Self Care; Health Education.

## RESUMEN

**Objetivo:** Describir la atención de enfermería en el manejo de la neuropatía periférica diabética en la Atención Primaria de Salud. **Método:** Se trata de un relato de experiencia desarrollado en una unidad de Atención Primaria, fundamentado en el Proceso de Enfermería. La intervención se llevó a cabo a lo largo de cuatro meses, desde principios de abril hasta principios de agosto de 2025, aproximadamente 120 días, e incluyó evaluación clínica sistematizada, identificación de diagnósticos de enfermería, elaboración de un plan de cuidados individualizado y acciones educativas dirigidas al autocuidado y a la prevención de complicaciones relacionadas con el pie diabético. **Resultados:** Las intervenciones resultaron en la cicatrización de la lesión, reanudación regular de la insulino terapia y mejora de la adhesión al autocuidado. **Conclusión:** El manejo de la neuropatía periférica diabética en la Atención Primaria, basado en la Sistematización de la Atención de Enfermería y en la construcción de un vínculo, se mostró eficaz para calificar el cuidado, favorecer la adhesión terapéutica y prevenir complicaciones e incapacidades.

**DESCRIPTORIOS:** Atención Primaria de Salud; Pie Diabético; Atención de Enfermería; Autocuidado; Educación en Salud.

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## INTRODUCTION

Diabetes Mellitus (DM) is a major global public health problem characterized by metabolic disorders and chronic hyperglycemia resulting from defects in insulin secretion and/or action<sup>(1-2)</sup>. Its etiology is multifactorial, involving genetic predisposition, environmental factors, and lifestyle habits such as physical inactivity and poor diet. The progression of the disease is associated with the development of micro-

and macrovascular complications, including neurological manifestations, which compromise the functionality and quality of life of individuals<sup>(1-2)</sup>.

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Among the chronic complications of DM, Diabetic Peripheral Neuropathy (DPN) stands out for its high prevalence and risk of serious outcomes, such as diabetic foot, foot ulcers, recurrent infections, and non-traumatic lower limb amputations<sup>(2)</sup>.  
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In Brazil, the magnitude of diabetic peripheral neuropathy follows the growing prevalence of diabetes, which in the adult population increased from 5.5% in 2006 to 9.7% in 2023, expanding the number of individuals at risk of developing the complication<sup>(3)</sup>.

National studies indicate that DPN affects between 40% and 60% of people with type 2 diabetes mellitus and is strongly associated with the time of diagnosis and poor glycemic control, a scenario that is exacerbated in

regions marked by greater health inequalities<sup>(4-5)</sup>.

In the North Region, evidence points to high vulnerability, with more than 50% of diabetes patients treated in Primary Health Care presenting signs suggestive of DPN, often without prior diagnosis<sup>(6)</sup>. Barriers to accessing services and a lack of resources for systematic screening, such as monofilament, contribute to late diagnosis and inadequate management, increasing the risk of complications and reinforcing the need to strengthen actions and train PHC teams<sup>(7)</sup>.

Given this context, this experience report aims to describe the practice of nursing care in the management of a case of diabetic peripheral neuropathy followed up at a Family Health Unit in the interior of the Western Amazon.

## METHOD

This is a descriptive, analytical-reflective study, characterized as an experience report, developed in a Basic Health Unit in the municipality of Santa Luzia d'Oeste, Rondônia, a small municipality with an estimated population of 7,567 inhabitants<sup>(8)</sup>.

The unit is organized into rural and urban sectors and has a multidisciplinary team composed of nurses, doctors, nursing technicians, and Community Health Agents, responsible for monitoring approximately 4,000 users. The service is organized according to the principles of the National Primary Care Policy (PNAB), with interprofessional activities focused on comprehensive care<sup>(9)</sup>.

The method adopted in this study consisted of applying the Nursing Process, developed in conjunction with the Family Health Unit team, covering the stages of data collection, nursing diagnosis, planning, implementation, and evaluation of interventions. Educational actions were carried out aimed at preventing complications re-

lated to diabetic foot, with an emphasis on self-care, including daily foot inspection, proper hygiene, glycemic monitoring, correct use of medication, and adherence to health guidelines.

Data collection included medical history, physical examination of the lower limbs, and assessment of social and family conditions. Follow-up was conducted continuously over four months from early April to early August 2025, approximately 120 days, enabling the assessment of clinical evolution and the impacts of nursing interventions.

As this is an experience report, the study does not require review by a Research Ethics Committee, with anonymity, confidentiality of information, and respect for the ethical principles of CNS Resolution No. 466/2012 being ensured.

## RESULTS

The interventions were performed on a young adult diagnosed with type 2 diabetes mellitus approximately ten years ago. In the initial assessment, the user had a history of previous incision in the plantar fascia of the left foot and recurrent episodes of diabetic foot-related lesions. Resistance to adherence to drug treatment was observed, with voluntary interruptions in the use of insulin and antihypertensive drugs, in addition to self-medication with natural products applied directly to the lesions.

At the beginning of the follow-up, a partially healed lesion was identified in the plantar region of the left foot, associated with the presence of scars from previous lesions. There were also signs of self-neglect, related to demotivation and fear of new hospital interventions, resulting from previous negative experiences during hospitalizations.

Based on the systematic assessment, the following nursing diagno-

ses were established: impaired tissue integrity; self-neglect related to fear of institutionalization; sedentary lifestyle; impaired sleep pattern due to work routine; and body image disturbance associated with changes resulting from diabetic foot.

Nursing interventions included local dressings with appropriate solutions, performed at the unit by the nurse and nursing technician, as well as guidance to caregivers on changing dressings at home and the need to return to the unit for assessment and debridement, when indicated. Guidance on the use of appropriate footwear, resumption of insulin therapy, regular monitoring of capillary blood glucose, and adherence to drug treatment was reinforced.

In addition, educational activities were developed on balanced nutrition, hydration, and light physical exercise, as well as family involvement as a strategy to support ongoing care. To ensure comprehensive and longitudinal care, the team periodically requested routine complementary laboratory tests to monitor chronic health conditions.

At the end of the follow-up period, favorable clinical evolution was observed, with complete healing of the lesion, regular resumption of insulin therapy, and significant improvement in adherence to self-care. Strengthening the bond with the nursing team proved to be decisive in overcoming initial resistance and adhering to the proposed therapeutic approaches.

## DISCUSSION

The results observed in this report reinforce that the effective management of Diabetic Peripheral Neuropathy in Primary Health Care transcends the prescription of isolated clinical procedures, requiring the shared construction of care between the health team, user, and family<sup>(9)</sup>.

The improvement in clinical evolution, evidenced by the healing of the lesion and the resumption of insulin therapy, was favored by the supported self-care strategy, in which the nursing team acted as a facilitator by offering technical and educational support. This approach, aligned with the principles of the National Primary Care Policy, contributes to the transition from a disease-centered model to a model oriented toward empowering users as protagonists of their own care<sup>(9-10)</sup>.

The literature corroborates that educational interventions aimed at user co-responsibility are decisive for the prevention of physical disabilities resulting from avoidable complications, such as ulcers and amputations, as they favor therapeutic adherence and the incorporation of self-care practices into daily life<sup>(10-11)</sup>.

In this sense, the bond established by the team, especially by the nurse, is a central element in overcoming self-neglect and initial fear, highlighting that the relationship of trust is an essential component of care, as relevant as local clinical interventions<sup>(9-6)</sup>.

The case presented highlights the complexity of managing diabetic peripheral neuropathy in primary health care, especially in the face of initial resistance to therapeutic adherence. This behavior, common in clinical practice, reflects psychosocial factors such as fear and mistrust of health services, reinforcing the need for strategies focused on humanizing care and building therapeutic bonds to promote changes in health behavior<sup>(9-6)</sup>.

In this context, nursing has proven to be fundamental in integrating technical procedures, skilled listening, and emotional support. Continuous and individualized educational interventions promote user empowerment, treatment adherence, and the prevention of complications related to diabetic foot<sup>(11)</sup>. Family involvement also

stood out as a strategic element for sustaining home care, as evidenced in the literature<sup>(10)</sup>.

The Systematization of Nursing Care contributed to the organization of the work process, allowing for the accurate identification of nursing diagnoses and the planning of interventions aligned with user needs<sup>(12)</sup>. This approach favored clinical decision-making and reinforced the impact of evidence-based nursing practice in the management of diabetic peripheral neuropathy<sup>(13)</sup>.

Finally, the experience reinforces the strategic role of Primary Health Care as the organizer of care and a privileged space for the longitudinal follow-up of people with diabetes<sup>(14-15)</sup>. The territorial action of the Family Health Strategy enables early and continuous interventions, which are fundamental for reducing complications, hospitalizations, and avoidable amputations, corroborating essential attributes derived from longitudinal health care in PHC<sup>(16-17-18)</sup>.

## CONCLUSION

This experience report showed that nursing care in the management of diabetic peripheral neuropathy in PHC, based on the Nursing Process, educational actions, and the construction of a therapeutic bond, contributes effectively to treatment adherence and the strengthening of self-care.

The favorable clinical evolution observed reinforces the strategic role of nursing in the prevention of diabetes mellitus complications, highlighting the importance of a comprehensive, humanized approach and longitudinal follow-up in PHC to improve the quality of life of users.

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