

Category: Applied research in health and medicine

SHORT COMMUNICATION

Prevalence and control of arterial hypertension: challenges and the role of nursing

Prevalencia y control de la hipertensión arterial: desafíos y rol de la enfermería

Laura Imán 1, Analía Imán 1

Cite as: Imán L, Imán A. Prevalence and control of arterial hypertension: challenges and the role of nursing. SCT Proceedings in Interdisciplinary Insights and Innovations.2025 Jan.1;3:469. DOI: https://doi.org/10.56294/piii2025469

Submitted: 12-09-2025 Reviewed: 27-11-2024 Accepted: 03-01-2025 Published: 05-01-2025

Editor: Emanuel Maldonado 🗓

ABSTRACT

Arterial hypertension (AHT) was identified as a chronic pathology characterized by persistent elevated pressure in the arteries. Diaz (2015) pointed out that its prolonged installation damaged blood vessels and myocardium, constituting the main risk factor for cardiovascular diseases and stroke. Studies such as RENATA-2 (Delucchi & Obregón, 2017) evidenced that, between 2015 and 2016, the prevalence of HTN in Argentina reached 36.3%, with an increase of 8.5% compared to RENATA-1. The National Survey of Risk Factors (2018) recorded elevated blood pressure in 40.6% of the population. The Ministry of Health implemented programs such as "Less salt, more life" and trained health teams to improve prevention and control. Sánchez Cabezas (2022) highlighted the key role of nursing in diagnosis and treatment, particularly in adult males, who more frequently abandoned treatment due to work conditions and lack of time.

Keywords: Arterial hypertension; Prevalence; Risk factors; Treatment; Nursing.

RESUMEN

La hipertensión arterial (HTA) fue identificada como una patología crónica caracterizada por una presión elevada y persistente en las arterias. Díaz (2015) señaló que su instalación prolongada dañó vasos sanguíneos y el miocardio, constituyendo el principal factor de riesgo para enfermedades cardiovasculares y accidentes cerebrovasculares. Estudios como RENATA-2 (Delucchi & Obregón, 2017) evidenciaron que, entre 2015 y 2016, la prevalencia de HTA en Argentina alcanzó el 36,3%, con un aumento del 8,5% respecto al RENATA-1. La Encuesta Nacional de Factores de Riesgo (2018) registró presión arterial elevada en el 40,6% de la población. El Ministerio de Salud implementó

¹ Universidad Abierta Interamericana. Facultad de Medicina y Ciencias de la Salud, Licenciatura en Enfermería. Sede Rosario. Rosario, Santa Fe. Argentina.

[©] Autor(es); 2025. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia *Creative Commons* (https://creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada.

programas como "Menos sal, más vida" y capacitó a equipos de salud para mejorar la prevención y el control. Sánchez Cabezas (2022) destacó el rol clave de enfermería en el diagnóstico y tratamiento, particularmente en varones adultos, quienes abandonaron más frecuentemente el tratamiento debido a condiciones laborales y falta de tiempo.

Palabras clave: Hipertensión arterial; Prevalencia; Factores de riesgo; Tratamiento; Enfermería.

Hypertension (high blood pressure) is when the blood exerts a persistently high force against the walls of the arteries every time the heart contracts. According to Díaz (2015), the chronic onset of the disease damages the blood vessels. It affects the myocardial structure, making it the leading risk factor for the development of cardiovascular disease and the leading cause of disability due to the aftereffects of stroke. Thus, the morbid process can lead to premature death and disability.

The treatment of hypertension, as Sanchez-Monge (2020) points out, has been shown to reduce cardiovascular morbidity and mortality, so health policies aimed at prevention and early diagnosis and control are the most beneficial way to improve people's quality and life expectancy. Hypertension is a silent disease because it is generally asymptomatic, with a slow progression that causes significant damage that manifests itself several years after its onset. It usually begins in people between the ages of 30 and 50. It is closely linked to less healthy lifestyles such as cigarette smoking, alcohol consumption, a sedentary lifestyle, an unhealthy diet, and stress. These health habits would converge with demographic, economic, and quality of life factors.

Concern about this problem has led to various epidemiological studies to establish the situation of HBP in the Argentine Republic. Delucchi & Obregón (2017) presented the joint initiative of the Argentine Society of Cardiology and the Argentine Federation of Cardiology, consisting of the design of the Second National Registry of Arterial Hypertension (RENATA 2), which was applied between August 2015 and March 2016 in 25 cities in the Argentine Republic. The study's objectives were to establish the prevalence of hypertension in the country, determine the level of knowledge about the diagnosis of hypertension, and define the percentage of hypertensive patients treated with drugs and under control. In addition, the study's secondary objectives were to determine adherence to antihypertensive treatment, salt and tobacco consumption, level of education, and type of access to the health system. According to data presented at the 42nd Argentine Congress of Cardiology in October 2016, RENATA-2 revealed that the prevalence of arterial hypertension in the adult population is 36.3%, with one in four people (24.2%) having the disease under control, while 38.8% are unaware that they suffer from it. This means, about the first edition of the study (RENATA-1 in 2008/2009, which made the situation of the disease in the country visible), that the prevalence of HBP increased by 8.5% (from 33.5% to 36.3%), that the percentage of patients who are unaware that they suffer from this pathology increased by 4.3% (from 37.2% to 38.8%) and that the number of hypertensive patients whose disease is under control decreased by 8.7% (from 26.5% to 24.2%). It should be noted that RENATA 1 is the first study of its kind in Argentina. In addition, these authors remind us that vascular dementia is another vital consequence to consider.

The 4th edition of the National Risk Factor Survey (ENFR) was carried out between September and December 2018 and forms part of the Non-Communicable Disease Surveillance System (ENT) and the Integrated Household Survey System (SIEH). It provides validated and reliable information on risk factors such as tobacco and alcohol consumption, diet, and physical activity, among others. The final report revealed that 40.6% of the general population had high blood pressure, with results greater than or equal to 140/90 mmHg, and 6 out of 10 individuals recognized as hypertensive had high blood pressure readings. This value coincides with worldwide evidence regarding the inadequate control of a large proportion of hypertensive individuals (either due to insufficient treatment, non-compliance with

treatment, or poor follow-up). On the other hand, high blood pressure was also recorded in 3 out of 10 patients who had not reported themselves as hypertensive, showing the extent to which this disease is underdiagnosed. According to the interpretation of results from the same report, the prevalence of high blood pressure among those who had ever had it measured in their lifetime remained stable at 34.6% (Argentine Ministry of Health, 2018).

Since 2011, the Ministry of Health of the Argentine Republic, together with the Pan American Health Organization (PAHO) - part of the World Health Organization (WHO) - and the Office of the Food and Agriculture Organization of the United Nations (FAO) have implemented the "Less salt, more life" program through various initiatives and agreements with provinces and supermarket chains. Official figures from the program (PAHO, 2015; Ministry of Health of Argentina, 2015; and PAHO, 2017) showed that one in three Argentine adults had high blood pressure, which aligns with global figures. The program, which seeks to reduce salt consumption, found that Argentina was the second country, after South Africa, to pass a comprehensive bill to minimize salt consumption. The passing of National Law No. 26,905 - on December 16, 2013 - provided a legal framework for the implementation of a plan to raise awareness, regulate and reduce sodium consumption in the population, as well as improve information to the population, accessibility to treatments, prevention, and promotion, and training of health professionals. As a result, consumption was already reduced from 25% in 2009 to 17% in 2013.

In addition to the strategy developed with OPS, the Ministry of Health of Argentina (2018) stated that high blood pressure is a prioritized line of care in the policies of the Secretary of Health within the framework of Universal Health Coverage (UHC) together with other chronic non-communicable diseases such as diabetes, cancer, and obesity. This initiative is in addition to internationally funded programs, such as REDES, PROTEGER, and PACES (formerly SUMAR), which have the same priorities. To this end, the Ministry of the Interior has included antihypertensive medication as part of the essential medicines kit at the first level of care through the Essential Medicines Program. Other initiatives include the National Program for the Prevention of Cardiovascular Diseases (RM 801/2011), which integrates provincial initiatives, and scientific and academic organizations developed the First Clinical Practice Guide for Arterial Hypertension in 2019. In parallel, primary care teams are being trained on the subject. Finally, all lines of work received support from PAHO in 2018 in a National Plan for the Prevention, Diagnosis, and Treatment of Hypertension at the primary care level with activities that integrate available resources and establish recommendations to improve the detection, registration, active follow-up, adequate treatment and control of people with hypertension. Likewise, action programs are implemented that benefit the primary prevention of arterial hypertension by addressing associated risk factors to prevent obesity, improve eating patterns, and promote physical activity.

In line with what has been presented, Delucchi et al. (2017) affirm that HBP represents a significant health problem due to its high prevalence and poor control of the disease, so it is essential to keep knowledge about the issue up to date. The participation of nurses, in their role as healthcare professionals, is critical for Fernández et al. (2010) in the detection of risk factors for hypertension, its timely diagnosis, the control of the objectives of its treatment and its follow-up, as well as the observation of other cardiovascular risk factors. In this sense, the critical fields of work for nurses are the measurement of blood pressure in all its modalities: measurement in the doctor's office, self-measurement, ambulatory blood pressure monitoring, counseling and monitoring of the patient in non-pharmacological treatment, pharmacological therapeutic compliance and the achievement of control objectives. These authors maintain that the nurse's role includes active participation in investigating this problem.

The strategic activity of nurses in health centers and their privileged position concerning the problems allows them to respond to Sánchez Cabezas" (2022) statement that "community health looks where it needs to look and shows what it needs to show." In addition to identifying realities, implementing the health policies described requires actors to promote and sustain them. As Blanco

Jiménez (2017) explains in Madrid, hypertension is one of the main reasons for consultation in primary care with sufficient information - from studies - confirming the relevance of nursing in fundamental areas such as diagnosis, the multifactorial approach to risk, the anamnesis of the side effects of pharmacological treatment and health education to modify lifestyle habits. Specifically, patients' knowledge about HBP and cardiovascular risk is still low, and future research is needed to improve patient therapeutic compliance.

In the health center proposed as a research site - where the researcher works - it has been observed that adult males abandon treatment more frequently, citing a lack of time due to their status as breadwinners and the need to spend many hours away from home in informal work activities. Men are less likely than women to attend this center, and it is often found that they progress from abandoning treatment to returning to the clinic with hypertensive crises. In addition, the results of RENATA2 (Delucchi et al., 2017) have been considered where - out of 5,931 individuals - the prevalence of arterial hypertension was higher in men (43.7% vs. 30.4%; p < 0.0001) with an increase in prevalence in both sexes as age advances.

Therefore, the objective was to describe the knowledge of and adherence to treatment for arterial hypertension in men aged between 30 and 60 registered at a health center between July and December 2021, with the aim of better understanding their situation and proposing actions that contribute to solving the problem.

REFERENCES

- 1. Bakris, G. (2021). Hipertensión. Manual MSD versión para profesionales. Disponible en https://www.msdmanuals.com/es-ar/professional/trastornos-cardiovasculares/hipertensi%C3%B3n/hipertensi%C3%B3n
- Blanco Jiménez, S. (2017). Enfermería comunitaria e hipertensión. Una revisión bibliográfica. Tercer Congreso Internacional de Comunicación en Salud. Madrid, 19 y 20 de octubre. Poster. En https://e-archivo.uc3m.es/bitstream/handle/10016/25458/enfermeria_blanco_3IHCH_2017.pdf?sequ ence=1&isAllowed=y
- 3. Castro-Serralde, E. (2018). Consejería personalizada de enfermería para la mejora del cumplimiento terapéutico, calidad de vida y cifras tensionales en el paciente hipertenso. Rev Enferm IMSS. 2018;26(1):4-15. Disponible en https://www.medigraphic.com/pdfs/enfermeriaimss/eim-2018/eim181b.pdf
- 4. Definición.de (2022). Definición de tensión arterial. Disponible en https://definicion.de/tension-arterial/
- 5. Delucchi, A., Majul, C., Vicario A., Cerezo, G. & Fábregues, G. (2017). Registro Nacional de Hipertensión Arterial. Características epidemiológicas de la hipertensión arterial en la Argentina. Estudio RENATA 2. Recuperado de: https://www.sac.org.ar/wp-content/uploads/2018/01/v85n4a08.pdf
- 6. Delucchi, A. & Obregón, S. (2017). Día Mundial de la Hipertensión Arterial. Sociedad Argentina de Cardiología -SAC- y Fundación Cardiológica Argentina. En https://www.sac.org.ar/institucional/dia-mundial-de-la-hipertension-arterial/
- 7. Díaz, M. (2015). Hipertensión arterial: un constante desafío. Revista Argentina de Cardiología, vol. 83, núm., abril 2015, pp. 85-86. Buenos Aires. Argentina. En https://www.redalyc.org/pdf/3053/305339281002.pdf
- 8. Díaz Gil, D. (2022). Metodologías diferentes para medir la Composición Corporal. HSN blog. Nutrición, Salud y Deportes. Disponible en

- https://www.hsnstore.com/blog/deportes/fitness/indice-de-masa-corporal-imc-indice-cintura-cadera-icc-dos-metodologias-diferentes-para-medir-nuestra-composicion-corporal/
- Fernández, L., Guerrero, L., Segura, J. & Gorostidi, M. (2010). Papel del personal de enfermería en el control de la hipertensión arterial y en la investigación cardiovascular. Hipertensión y Riesgo Vascular. Volume 27, Supplement 1, 2010, Pages 41-52, ISSN 1889-1837, https://doi.org/10.1016/S1889-1837(10)70008-8. En https://www.sciencedirect.com/science/article/abs/pii/S1889183710700088#
- 10. Gómez, J.F., Camacho, P. A., López-López, J. & López-Jaramillo, J. (2019). Control y tratamiento de la hipertensión arterial: Programa 20-20. Revista Colombiana de Cardiología. Volume 26, Issue 2, March-April 2019, Pages 99-106. https://doi.org/10.1016/j.rccar.2018.06.008. Disponible en https://www.sciencedirect.com/science/article/pii/S0120563319300257
- 11. Gómez-León Mandujano, A., Morales López, S. & Álvarez Díaz, C. (2016). Técnica para una correcta toma de la presión arterial en el paciente ambulatorio. Rev. Fac. Med. (Méx.) vol.59 no.3 Ciudad de México may./jun. 2016. Disponible en https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0026-17422016000300049
- 12. Lopategui Corsino, E. (2020). Procedimientos a seguir para determinar la presión arterial en reposo. Saludmed. http://saludmed.com/ejercicio/laboratorios/LAB-7-Determinacion_Presion-Arterial.pdf
- 13. Manzini, F. & Pessuto Simonetti, J. (2009). Consulta de enfermería aplicada a clientes portadores de hipertensión arterial: uso de la teoría del auto cuidado de Orem. Rev Latinoam Enfermagem 2009 janeiro-fevereiro; 17(1). Disponible en https://www.scielo.br/j/rlae/a/sm5cMWv8qjNdBGYBW7whv7K/?format=pdf&lang=es
- 14. Ministerio de Salud de Argentina (2015). Presentación resultados iniciativa "Menos Sal, Más Vida". En https://bancos.salud.gob.ar/sites/default/files/2020-01/presentacion-resultados-iniciativa-menos-sal-mas-vida.pdf
- 15. Ministerio de Salud de Argentina (2018). 4ta encuesta nacional de factores de riesgo. Dirección Nacional de Promoción de la Salud y Control de Enfermedades Crónicas No Transmisibles, Principales resultados. En https://bancos.salud.gob.ar/sites/default/files/2020-01/4ta-encuesta-nacional-factores-riesgo_2019_principales-resultados.pdf
- 16. Ministerio de Salud de Argentina (2022). Hipertensión arterial. Disponible en https://www.argentina.gob.ar/salud/glosario/hipertension#:~:text=La%20hipertensi%C3%B3 n%20arterial%20(HTA)%20es,las%20paredes%20de%20las%20arterias.
- 17. Murciasalud (2014). ¿Cuáles son las posibles causas de diferencia en cifras de presión arterial medida en ambos brazos? Biblioteca Virtual Murciasalud. Disponible en https://www.murciasalud.es/preevid/19785#:~:text=Un%20estudio%20transversal%20recien te%2C%20realizado,ser%20la%20del%20brazo%20derecho.
- 18. Naranjo, H.Y., Concepción, P.J.A., Rodríguez, L.M. (2017). La teoría Déficit de autocuidado: Dorothea Elizabeth Orem. Gaceta Médica Espirituana. 2017;19(3). Disponible en https://www.medigraphic.com/pdfs/espirituana/gme-2017/gme173i.pdf
- 19. Oliveira Reiners, A. & Nogueira, M. (2009). Concientización del usuario hipertenso sobre la adhesión al tratamiento. Rev Latino-am Enfermagem 2009 janeiro-fevereiro; 17(1). Disponible en https://www.scielo.br/j/rlae/a/zKgHD7FvBmFsB3fwBVnJT6J/?format=pdf&lang=es
- 20. Organización Panamericana de la Salud (2015). Argentina: Uno de cada tres adultos tiene presión arterial elevada en Argentina. Buenos Aires, 18 de mayo de 2015. En

- https://www.paho.org/es/noticias/18-5-2015-uno-cada-tres-adultos-tiene-presion-arterial-elevada-argentina.
- 21. Organización Panamericana de la Salud (2017). Estrategia de cooperación de la OPS/OMS con Argentina 2017-2021. En https://iris.paho.org/bitstream/handle/10665.2/34360/OPSARG17023_spa.pdf?sequence=5 & & isAllowed=y
- 22. Piña, P. (2022). Adherencia al tratamiento y control de la presión arterial. Sociedad Interamericana de Cardiología. Disponible en https://www.siacardio.com/editoriales/prevencion-cardiovascular/siacprevent/hta/
- 23. Sánchez Cabezas, A. (2022). ¿Para qué sirve la salud comunitaria? Surcos, Salud Social Colaborativa. En https://surcos.org/web/para-que-sirve-la-salud-comunitaria/
- 24. Sanchez-Monge, M. (2020). Hipertensión arterial. Cuidateplus. En https://cuidateplus.marca.com/enfermedades/enfermedades-vasculares-y-del-corazon/hipertension-arterial.html
- 25. Santamaría Olomo, R. & Gorostidi, R. (2021). Hipertensión arterial secundaria. Elsevier.es nefro pdfs nefrologia-dia-409. Disponible en https://static.elsevier.es/nefro/monografias/pdfs/nefrologia-dia-409.pdf
- 26. Sociedad Argentina de Hipertensión Arterial (2018). Consenso Argentino de Hipertensión Arterial. Revista Argentina de Cardiología, 86(2), 1-54. En http://saha.org.ar/files/documents/CONSENSO-SAHA-2.pdf
- 27. Wassermann, A. (2013). Hipertensión Arterial Epidemiología, Fisiopatología y Clínica. FEPREVA- Fundación para el Estudio, la Prevención y el Tratamiento de la Enfermedad Vascular. Curso de Capacitación de Posgrado a Distancia Síndrome Metabólico y Riesgo Vascular Conjunto ABCBA Abril 2013-Diciembre 2013 -. Disponible en http://www.fepreva.org/curso/curso_conjunto_abcba/ut_16.pdf
- 28. Williams, B. et al. (2019). Guía ESC/ESH 2018 sobre el diagnóstico y tratamiento de la hipertensión arterial. Rev Esp Cardiol. 2019;72(2):160.e1-e78. Disponible en http://samin.es/wp-content/uploads/2019/03/Gui%CC%81as-Europeas-HTA-2018.pdf.

FINANCING

None.

CONFLICT OF INTEREST

None.