

# Assessment of blood pressure control and antihypertensive medication adherence in a Portuguese hypertensive population



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**Background:** Hypertension is one of the major causes of worldwide morbidity and mortality. Despite the wide variety and availability of powerful antihypertensive agents, less than a third of the adult hypertensive patients have their blood pressure (BP) controlled. Nonadherence to medication is one of the major causes of treatment failure.

**Purpose:** To evaluate BP control and antihypertensive medication adherence in a Portuguese hypertensive population.

**Materials and Methods:** A cross-sectional observational study was conducted in adult (aged 18 or over) hypertensive patients attending, for at least 6 months, the hypertension/dyslipidemia clinic at the university teaching hospital of Cova da Beira Hospital Centre, Covilhã, Portugal, from March to August 2012. Patients were asked to participate in a structured interview which included socio-demographic characteristics, antihypertensive medication adherence and target BP values. Medication adherence was measured using a validated five-item adherence scale,<sup>1</sup> derived from the four-item scale developed by Morisky *et al.*<sup>2</sup> Detailed clinical information was obtained from medical records.

**Results:** A total of 94 patients met the inclusion criteria and completed the structured interview. Of these, 47% had their BP controlled according to the European Society of Hypertension. Antihypertensive medication adherence was 40%. Patients with controlled BP had a significant higher rate of medication adherence than patients with uncontrolled BP (52% vs 30%,  $P=0.028$ ). Likewise, it was observed that patients with controlled BP were significantly more aware of their target BP figures (75% vs 46%,  $P=0.034$ ).

	Controlled BP (n=44)	Uncontrolled BP (n=50)	P value
Rate of medication adherence (%)	52	30	0,028
Target BP awareness (%)	75	46	0,034

Tabela 1 – Medication adherence and knowledge of target BP values.

**Conclusions:** Many hypertensive patients prescribed with antihypertensive therapy fail to achieve BP control in clinical practice. Poor medication adherence and patient knowledge of target BP values should be considered as possible underlying causes of inadequately controlled BP and must be addressed in any intervention aimed to improve BP control.

## References

<sup>1</sup>Shea S, Misra D, Ehrlich MH, Field L, Francis CK. Correlates of nonadherence to hypertension treatment in an inner-city minority population. American journal of public health. 1992 Dec; 82(12):1607-12. PubMed PMID: 1456334. Pubmed Central PMCID: 1694541.

<sup>2</sup>Morinsky DE, Green LW, Levine DM. Concurrent and predictive validity of a self-reported measure of medication adherence. Medical care. 1986 Jan; 24(1):67-64. Pubmed PMID: 3945130.

**Conflicts of Interest:** Nothing to disclose.