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Determinants of Inhaler Adherence in COPD and Asthma Patients: An Interim National Study from Albania

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Abstract

Background: Adherence to inhaled therapy is essential for managing Chronic Obstructive Pulmonary Disease (COPD) and asthma, yet no real-world adherence data exist for Albanian patients.

Aims: The aim of this study is to evaluate inhaler adherence patterns and determinants among Albanian Chronic Obstructive Pulmonary Disease (COPD) and asthma patients using the Test of Adherence to Inhalers (TAI).

Study design: A cross-sectional study with a 12-month prospective recruitment period was conducted at the Tirana Regional Hospital Centre "Shefqet Ndroqi" (March 2024 – March 2025). The analysis presented is an interim snapshot, presenting data collected until January 2025.

Methods: Based on statistical calculations, 236 patients were targeted. The TAI-12 questionnaire was adapted and translated into Albanian. Adherence was analyzed using GraphPad Prism, using ANOVA and paired/unpaired t-tests.

Results: Of 148 patients, 92.6 % were non-adherent, with only 2.7 % adherent but unconscious non-compliant. Mean score was 35.30 (SD 5.29) for Q1–10 and 2.86 (SD 0.78) for Q11–12. Self-report exceeded provider rating ($p < 0.0001$). Higher education level and age <50 years were associated with better provider-rated adherence ($p = 0.001$ and $p < 0.0001$, respectively). Q11-12 scores were also higher in asthma patients ($p = 0.0102$) compared to COPD.

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Multi-provider instruction correlated with higher self-reported adherence ($p = 0.0417$).

Conclusion: Most Albanian patients overestimate adherence. However, education level positively influenced objective adherence, while multidisciplinary instruction improved self-reported adherence. Therefore, structured national programs and coordinated care by multiple providers are needed to improve disease management.

Keywords: Medication Adherence, Inhalation Therapy, Asthma, Chronic Obstructive Pulmonary Disease (COPD)