Adherence to Inhaler Devices and it's Impact on COPD Assessment Test and Asthma Control Test in India (ERS 2025)

Adherence, Asthma, COPD

S. Bhalare1, S. Patil2, A. Singh3, G. Singhal4, S. Sarkar5, H. Sawhney6, B. Ghewade7, A. Dave8, I. Haldar9, J. Ram10, A. Mendiratta11, M. Sarkar12, A. K. Badam13, S. Karmakar14, S. Moitra15, P. Valsalan K16, A. Jindal17, S. Toke18, G. Devi H.J19, A. Shah20, T. Kulkarni21, S. Balamurugan22, S. Phadnis23, S. Madas23, D. Ghorpade23, S. Kulkarni23, M. Chandolkar23, A. Sabale23, J. Yenpure23, M. Gajul23, M. Lopez24, S. Nair24, V. Naik24, M. Senthilnathan24, J. Gogtay24, S. Salvi25 1Chest Research and Training Pvt Ltd - Pune (India), 2Venkatesh Hospital and Critical Care Centre - Latur (India), 3Dayanand Medical College and Hospital - Ludhiana (India), 4Neelkanth Hospital - Haldwani (India), 5Advanced Chest Clinic and Sleep Apnea Center - Ranchi (India), 6Faith Hospital - Chandigarh (India), 7JNMC Datta Meghe Institute of Medical Sciences - Wardha (India), 8Lung Care (Daya Madhav Hospital) - Vadodara (India), 9Lung Care and Research Institute - Hooghly (India), 10SIMS Chellum Hospital - Salem (India), 11Krishna Clinic - Vasco da Gama (India), 12Indira Gandhi Medical College - Shimla (India), 13Shruthi Super Specialties Hospital - Hyderabad (India), 14All India Institute of Medical Sciences - Patna (India), 15Allergy and Asthma Research Centre - Kolkata (India), 16Aster Medcity - Kochi (India), 17Jindal Clinics - Chandigarh (India), 18Muktai Speciality Clinic - Pune (India), 19Joshy's Medical Center - Bangalore (India), 20SBKS MI&RC, Sumandeep Vidyapeeth - Vadodara (India), 21Jupiter Hospital - Thane (India), 22Chest and Diabetes Research Institute - Chennai (India), 23Pulmocare Research and Education Foundation - Pune (India), 24Department of Medical Affairs, Cipla Ltd., - Mumbai (India), 25Chest Research and Training Pvt Ltd, Pulmocare Research and Education Foundation - Pune (India)

Background: Suboptimal adherence to inhalers in asthma and COPD patients results in poor disease control and quality of life. There is limited information on adherence to inhalers, its impact & reasons for non-adherence among Indian OAD patients.

Methodology: This study evaluated inhaler adherence and its effect on disease control in 747 OAD patients from 23 sites in India. Adherence was assessed using Test of Adherence to Inhalers (TAI), disease control 1/2 27/02/2025 was measured using Asthma Control Test (ACT) for asthma and the COPD Assessment Test (CAT) for COPD.

Results: Among 747 patients, 465 (62%) had asthma and 282 (38%) had COPD. Good or intermediate inhaler adherence was seen in only 38% of asthma and 45% of COPD patients. Among asthma patients, very poor control (ACT≤15) was observed in 18% of those with good or intermediate adherence, compared to 44.1% in the poorly adherent group. Similarly, among COPD patients, 34.6% with good or intermediate adherence had a high disease impact (CAT>20), compared to 54.8% of poorly adherent patients (Figure 1). Common barriers to adherence included forgetting, stopping use of inhalers when feeling better and using fewer inhalers than prescribed.

Conclusion: Inhaler adherence positively impacts disease control in both asthma and COPD patients. Improving adherence to prescribed inhaler regimens is crucial for optimal disease management.

Figure 1: Impact of adherence on disease control