

Adherence in Adolescents with Asthma: How to Achieve the Goal?

Alberto Vidal*

Unit of Pediatric Pulmonology, Clínica MEDS, Santiago, Chile

***Corresponding Author:** Alberto Vidal, Unit of Pediatric Pulmonology, Clínica MEDS, Santiago, Chile.

Received: October 21, 2025; **Published:** October 29, 2025

According to The Global Asthma Report 2022, the prevalence of asthma in adolescents between 13 and 14 years old is marked at 11%, with severe symptoms that regularly interfere with daily life that varied with the level of development of the countries analyzed: 53.3%, 47.9%, 42.3% for low- to lower-middle, upper-middle and high-income, respectively [1]. A recent multinational study reported that only 55.4% of adolescents with asthma achieved good control and that 60.1% of adolescents with severe asthma had not used inhaled corticosteroids alone or with long-acting beta2 agonists in the past year, differences that were not significant between low- and middle-income and high-income countries [2]. The lack of adherence in this group is highly alarming and responds to different factors that must be addressed in the care of these patients. There are significant roadblocks affecting adolescents' success in achieving adequate adherence to asthma control treatment. Forgetfulness or lack of planning to follow the treatment, little perception of the benefit to their health, fear of side effects, low level of knowledge of the disease, social stigmatization or shame, the complexity of administering the medications, and conflicts with their parents are barriers that adolescents suffering from asthma have reported [3]. Neuropsychiatric comorbidities such as attention deficit hyperactivity disorder, depression, or risky behaviors such as tobacco, vaporizer, and cannabis use, have been associated with loss of adherence and poor health outcomes in adolescent asthma [4-6].

So, what strategies or interventions can be used in asthmatic adolescents who lose treatment adherence? It is recommended that interaction with adolescents be empathetic, providing clear information about the disease and reaching an agreement on treatment goals and alternatives, as proven to ensure better clinical outcomes [7]. Intentional non-adherence could be overcome with motivational interviews that are designed to address concerns (e.g. beliefs about medications), model behavior (e.g. attitude toward treatment), and provide motivation based on the specific challenges and goals each adolescent with asthma has. Motivational interventions with adolescents were recently shown to improve adherence and self-efficacy compared to asthmatics who only received standard treatment [8]. Among intentional non-adherent patients, it is also possible to find a group of adolescents with psychological, family, or peer relationship problems, which should always be closely monitored by their treating physicians, to make referrals to support specialists.

Adolescents with asthma gradually lose parental supervision over their treatment, which, combined with their multiple daily activities, leads to unintentional non-adherence, such as forgetting to administer daily doses or replacing their inhalers when they run out. To tackle this problem, professionals who work with adolescents with asthma must take advantage of one of their most proficient areas: technology. Taking into account the benefits of this emerging field, mobile health has emerged, providing adolescents with tools to manage their asthma. Mobile health uses smartphones and tablets to provide adolescents with asthma with tools that allow them to improve self-care, treatment adherence, and action plans for managing symptoms. Regarding treatment adherence, the applications offer electronic

treatment monitoring systems, dose reminders, non-compliance alarms, canister replacement alerts, and even the possibility of providing feedback or chat consultations to pharmacists, nurses, or treating physicians [9]. Another beneficial element in this group is precision medicine, which provides a personalized approach allowing the most appropriate interventions or treatments to be chosen for each patient. Precision medicine focused on adolescents with asthma should consider the assessment of lung function and biomarkers, as well as the choice of the most appropriate device (e.g. once-daily dry powder inhaler) or treatment regimen (permanent or as needed), which should be evaluated according to personal characteristics, disease severity, and future risk of attacks [10]. Finally, healthcare professionals working with adolescents with asthma should endeavor to develop and maintain skills such as autonomy, responsibility, self-efficacy, and self-care, which will allow for a smooth and appropriate transition to adulthood treatment adherence.

Bibliography

1. "The Global Asthma Report 2022". *International Journal of Tuberculosis and Lung Disease* 26.1 (2022): 1-104.
2. García-Marcos L., *et al.* "Asthma management and control in children, adolescents, and adults in 25 countries: a Global Asthma Network Phase I cross-sectional study". *Lancet Global Health* 11.2 (2023): e218-e228.
3. De Simoni A., *et al.* "What do adolescents with asthma really think about adherence to inhalers? Insights from a qualitative analysis of a UK online forum". *BMJ Open* 7.6 (2017): e015245.
4. Silverstein GD., *et al.* "The relationship between pediatric attention-deficit/hyperactivity disorder symptoms and asthma management". *Journal of Adolescent Health* 73.5 (2023): 813-819.
5. Naveen KH., *et al.* "Symptoms of depression and inhaler adherence among adolescents with asthma: is there an association?" *Pediatric Pulmonology* 60.4 (2025): e71098.
6. Vidal A., *et al.* "Tobacco, vaporizers, and cannabis in asthmatic adolescents". *Journal of Adolescent and Addiction Research* 3.1 (2024).
7. Kaplan A., *et al.* "Treatment adherence in adolescents with asthma". *Journal of Asthma and Allergy* 13 (2020): 39-49.
8. Taheri F., *et al.* "Effect of motivational interviewing on treatment adherence and self-efficacy of adolescents with asthma: A randomized controlled trial". *Nursing Open* 10.7 (2023): 4373-4383.
9. O'Connor A., *et al.* "Isn't there an app for that? the role of smartphone and tablet applications for asthma education and self-management in adolescents". *Children (Basel)* 8.9 (2021): 786.
10. Kaplan A. "Precision medicine: how to approach the adolescent asthmatic". *Exploration of Asthma and Allergy* 1 (2023): 153-162.

Volume 14 Issue 11 November 2025
©All rights reserved by Alberto Vidal.