

Addressing Nonadherence in Real Life—The Importance of an Evidence-Based Pragmatic Approach



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Twenty years ago, Barbara Turner (University of Pennsylvania) and Fredrick Hecht (San Francisco General Hospital) wrote an editorial in the *Annals of Internal Medicine*.¹ In it, they introduced a manuscript exploring the challenges of monitoring adherence and the use of composite adherence measures²—all in all unremarkable for us in 2021. However, what did leave an impression on me was Turner and Hecht's reference to one of the most outstanding figures in the history of medicine, Hippocrates, who some 23 centuries earlier was quoted as saying: "The physician must not only be prepared to do what is right ... but also to make the patient... cooperate."³ Although the tone of this quote is outdated and completely unaccepted in today's world, it brought home one message loud and clear—we have known about the importance of adherence for centuries and are still struggling with its challenges, especially when it comes to the management of asthma and chronic obstructive pulmonary disease (COPD).⁴

So how far have we come in 23 centuries and where are we with adherence in 2021?

1. We know that measuring and monitoring adherence accurately can be difficult,⁵ even as digital technologies emerge and continue to evolve.⁶
2. It is well accepted that the proportion of people who are adherent to their asthma and/or COPD is low; ranging from approximately 30% to 70% and the lowest of any medication group.⁴ There is some indication that this is even in the case for those with more severe disease.⁷

3. We recognize that the nature of nonadherence is complex, determined by a range of personal, psychosocial, circumstantial, and disease-related behaviors, perceptions, and attitudes that can present as failure to initiate therapy, failure to implement therapy, and failure to persist with therapy.⁸
4. We understand that there are different types of adherence, and as per World Health Organization (WHO) definition can be categorized as erratic (often referred to as forgetfulness), intelligent (or deliberate), and unwitting (or unconscious) nonadherence⁹; each of which present different challenges and require a different approach to overcome.
5. We know that evidence-based interventions that address different types of adherence and the multifactorial issues that influence them can effectively address nonadherence and improve disease outcomes.¹⁰

Yet still in clinical practice, poor adherence with asthma and COPD medications remain a major challenge! Clearly, something is missing in the translation of research into practice.

In this issue of *Journal of Allergy and Clinical Immunology In Practice*, van de Hei and colleagues¹¹ aim to address this particular challenge: that is, the implementation of evidence-based strategies to improve adherence in asthma and COPD in the real world and in day-to-day practice. Through a review of the effective evidence-based medication adherence interventions and the use of the Test of Adherence to Inhalers as a non-adherence screening tool, the authors develop a practical, evidence-based decision support toolkit for health care professionals to management nonadherence—the first of its kind.

Through this process, there are several interesting findings. First of all, the possible literature, over all these years, only 40 articles of effective interventions were identified; and even among them there was heterogeneity and shortcomings. Second, the effective adherence interventions could essentially be classified into 7 categories—reminders, educational interventions, multi-component interventions, motivational strategies, shared decision making, simplifying medication regimen, and feedback on medication use—all of which were mapped to specific outcomes from the Test of Adherence to Inhalers. And finally, the authors apply a pragmatic approach to the interventions identified, with an appreciation of the fact that perhaps the clinical improvement/outcome is more important than striving for 100% adherence in itself. All of these findings highlight the complexity of nonadherence, and this manuscript takes the first major step in matching adherence screening with evidence-based interventions to aid the management of nonadherence in the real-world setting, in an attempt to make it more straightforward for health care providers in the delivery of care. A thoughtful manuscript with real potential to make a difference.

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