

# USER GUIDE FOR HEALTHCARE PROFESSIONALS



## Test of Adherence to Inhalers

Comments from the Scientific Committee  
on frequently asked questions

## INTRODUCTION TO THE TEST OF ADHERENCE TO INHALERS (TAI)

The **Test of Adherence to Inhalers (TAI)** is a new questionnaire for patients with asthma or COPD that simply and reliably:



**Identifies** patients with low adherence

Determines the **degree of adherence**: good, intermediate or poor

Gives an idea of patient's **type or pattern of non-compliance**: sporadic, deliberate or unconscious

The TAI has been developed and validated by researchers from the Integrated Research Programmes (PIIs) on Asthma and COPD of the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR), based on a rigorous research process. It is an innovative and very useful tool for healthcare professionals in their care practice. Furthermore, its discriminatory capacity and limited administration time make the TAI an excellent instrument for regular use in day-to-day clinical practice.

This guide is intended as a practical manual for using the questionnaire. It includes guidelines for using and interpreting the questionnaire, as well as the answers to questions that healthcare professionals may have, with the end goal of facilitating its use day-to-day practice.

### SCIENTIFIC COMMITTEE

**Dr. Vicente Plaza**  
Hospital de la Santa Creu i Sant Pau, Servicio de Neumología

**Dr. Luis Manuel Entrenas**  
Hospital Reina Sofía, Servicio de Neumología

**Dr. Borja García-Cosío**  
Hospital Universitario Son Espases, Medicina Respiratoria

**Dr. Antolín López Viña**  
Hospital Puerta Hierro-Majadahonda, Servicio de Neumología

**Dr. Carlos Melero**  
Hospital Universitario 12 de Octubre, Servicio de Neumología

**Dr. Luis Pérez de Llano**  
Hospital Universitario Lucus Augusti, Servicio de Neumología

**Dra. Concepción Fernández**  
Universidad de Oviedo, Facultad de Psicología

## RATIONALE FOR DEVELOPING THE TAI

Patient adherence to treatment is a critical factor in controlling the disease and keeping it under control. Low adherence to inhalers is consistently linked to increased morbidity and mortality in both asthma and COPD. This is why it is crucial to determine the degree of adherence to treatment in each patient. Given that their medical record alone overestimates adherence, the use of validated questionnaires is recommended in day-to-day clinical practice.

Some of the questionnaires for assessing adherence which are currently available have had limited impact and are rarely used in regular clinical practice, due to some questionable features: inadequate validation processes or non-specificity to inhalers. Furthermore, they have proved to be of little clinical use in identifying specific barriers to therapeutic adherence (for example, they do not identify the type of non-compliance).

Knowing the type of non-compliance and, in particular, the conditions that act as barriers to patient adherence, provides valuable information that makes it possible to apply specific corrective measures in patient education programs for each type of non-compliance.

The TAI aims to offer what other questionnaires lack by quickly, cheaply and reliably identifying patients with poor adherence to treatment and giving an idea of their patterns and types of non-compliance.



## DESCRIPTION OF THE TAI

The TAI consists of **two complementary questionnaires** that may be used separately, depending on care needs: the **10-item TAI**, which identifies patients with poor adherence and their degree of adherence, and the **12-item TAI**, which helps give an idea of their type or pattern of non-compliance.



### 10-item TAI

- It consists of **10 questions** that the **patient should fill in on their own**
- The **scoring range for each question** is from **1: worst compliance** to **5: best compliance**
- The score for the 10 items provides a **total score** of between **10 (minimum)** and **50 (maximum)**

### 12-item TAI

- This consists of the **10 questions** that the **patient should fill in on their own (10-item TAI)**, plus another **2 questions** for the **healthcare professional caring for them**
- The **questions for healthcare professionals** are scored with **1 or 2 points (poor or good knowledge of the regimen and/or inhalation technique)**

If the healthcare professional would like to assess only adherence and degree of adherence, they should use the 10-item TAI. If they would also like to assess type of non-compliance, they may use the 12-item TAI.

Type or pattern of non-compliance shall be assessed as follows:

- Items 1 to 5 assess 'sporadic' non-compliance (score of 5 to 25)
- Items 6 to 10 assess 'deliberate' non-compliance (score of 5 to 25)
- Items 11 to 12 assess 'unconscious' non-compliance (score of 2 to 4)

## TAI SCORING RANGES AND INTERPRETATION OF RESULTS

10-item TAI		<i>Level of adherence</i>	
SCORE		INTERPRETATION	
= 50 points	>	Good adherence	
46 to 49 points	>	Intermediate adherence	
≤ 45 points	>	Poor adherence	

12-item TAI		<i>Type of non-compliance*</i>	
SCORE		INTERPRETATION	
Items 1 to 5 < 25	>	Sporadic non-compliance	
Items 6 to 10 < 25	>	Deliberate non-compliance	
Items 11 to 12 < 4	>	Unconscious non-compliance	

*\*A single patient may have more than one type or pattern of non-compliance, and a patient with 50 points on the 10-item TAI may be an unconscious non-complier on the 12-item TAI.*

- ✓ **Sporadic non-compliance:** patient who forgets to take their medication.
- ✓ **Deliberate non-compliance:** patient who does not take their medication because they do not want to.
- ✓ **Unconscious non-compliance:** patient who does not take their medication properly because they do not know the therapeutic regimen and how to use their inhaler.

## THE TAI IN DAY-TO-DAY CLINICAL PRACTICE

### Why should the TAI be used?

The TAI is a useful instrument in clinical decision-making, since the possibility of better understanding each patient's lack of adherence from various perspectives provides valuable information which enables the carer to devise a strategy for personalised and effective care through specific corrective measures based on the patient's profile.

### Who is the TAI suitable for?

The TAI is suitable for all patients over 18 with asthma or COPD in treatment with inhaled medications.

### When should the TAI be used?

The TAI may be used at the discretion of the healthcare professional, as it offers a reliable measure of patient adherence and supplements the information that may be obtained in a regular check-up.

## THE TAI IN CLINICAL RESEARCH

### Should permission be requested to use the TAI in research projects?

Yes. This is true for most of the questionnaires available.

### Is it necessary to pay a fee to use it?

This depends on the user and the project environment. Specifically:

- **In regular clinical practice:** all healthcare professionals may use it freely, at no cost and with no request for permission, in their regular clinical practice, in both outpatient clinics and pharmacies. It may be obtained from the website [www.taitest.com](http://www.taitest.com).
- **In independent studies not sponsored by commercial organisations:** permission for use shall be requested through the website [www.taitest.com](http://www.taitest.com), at no additional cost.
- **In studies sponsored by commercial organisations:** companies (or contracted CROs) must request the relevant permission and pay the established fee through the website [www.taitest.com](http://www.taitest.com). The proceeds will go towards research programmes.



## FAQs

### *Who has to administer the TAI?*

The 10-item TAI must be filled in by the patient. On the 12-item TAI a healthcare professional must assess the score for the last two items.

### *Does the TAI take a long time to fill in?*

It takes only about three minutes to fill in the 10-item TAI. The 12-item TAI can be filled in in approximately five minutes.

### *How often can it be administered?*

Administration of the questionnaire is recommended on the first visit of patients who regularly use inhaled medications and in periodic patient follow-up, in both outpatient clinics and pharmacies.

### *How reliable is it?*

The results obtained in TAI questionnaire scores have been shown to correlate well with electronic gauges of inhaler compliance and provide a reliable assessment of adherence.

### *To what extent can this method be combined with another method?*

Administration of the TAI questionnaire may be combined with other methods that assess patient adherence to treatment, such as monitoring medication collection from the pharmacy.

## USING THE TAI

The TAI can be downloaded from the following website:

[www.taitest.com](http://www.taitest.com)



## REFERENCES

Plaza V, Fernández-Rodríguez C, Melero C, Cosío BG, Entrenas LM, Pérez de Llano L, et al. Validation of the 'Test of the Adherence to Inhalers' (TAI) for asthma and COPD patients. J Aerosol Med Pulm Drug Deliv. 2015 Jul 31. [Epub ahead of print]



## Test of Adherence to Inhalers

[www.taitest.com](http://www.taitest.com)

TAI Test of Adherence to Inhalers is a joint initiative of the **Scientific Committee for the TAI Project** and Chiesi

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