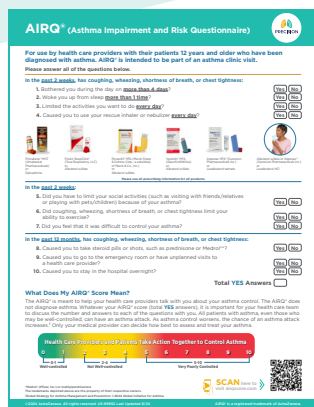


How implementing AIRQ® and Asthma Checklist may help you improve control and decrease exacerbations for your patients



What is the

AIRQ®?



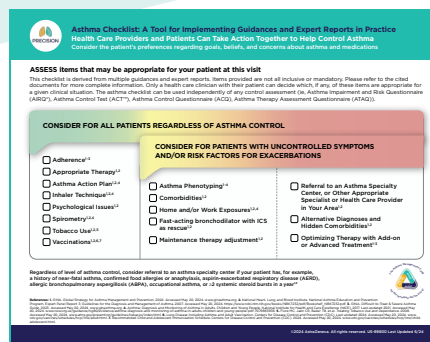
The **Asthma Impairment and Risk Questionnaire (AIRQ®)** is a 10-item, yes/no, composite tool that helps identify symptom control and assess exacerbation risk for patients aged ≥ 12 years.

AIRQ® includes 7 symptom-based impairment questions with a 2-week recall and 3 exacerbation history-based risk items with a 12-month recall period. A **Follow-up AIRQ®** uses a 3-month recall period for the risk items.

The AIRQ® is intended to be used as a shared decision-making tool to heighten clinician and patient awareness of asthma control.

What is the

Asthma Checklist?



The **Asthma Checklist** consolidates key concepts found in multiple guidances and expert reports on asthma assessment, management and patient education. It can be used alone or as a companion to any assessment of asthma control.

The Asthma Checklist is a point-of-care, expert opinion-based, assessment tool designed to facilitate guidelines-directed care.

AIRQ® and Asthma Checklist Implementation Study

Methods

Enrollment: 192 patients with asthma aged ≥ 13 years were enrolled from April-December 2021

Outcomes: change in control (for those with follow-up) and change in pre- vs post-study entry annual exacerbation rate*

Sample Demographics



SC = 124 PC = 68
30.7% completed a follow-up visit



48.0 (15.1)
Years, mean (SD)



70.8%
Female



Race and ethnicity
11.5% Black or African American
9.9% Hispanic or Latino



Initial visit (telehealth or in-person)

- AIRQ® completed by patient before seeing clinician
- Clinician reviewed AIRQ® with patient
- Clinician indicated which, if any, Asthma Checklist items he/she intended to utilize



Follow-Up visit (telehealth or in-person)

If a second visit occurred, patient completed a Follow-Up AIRQ®



Collection of exacerbation data over 12 months pre- vs post-study entry

All patients from 2 SC and 2 PC sites, regardless of whether a follow-up visit took place, had exacerbation occurrences collected during the 12 months pre- and post-study entry

*Defined as asthma-related use of oral corticosteroids, emergency department/unplanned outpatient visits, or hospitalizations.

Impact

At Follow-Up

136%
increase in patients with
WC asthma

31%
decrease in patients with
uncontrolled asthma
(NWC + VPC)

There was

an **increase** in the
proportion of patients with
well-controlled asthma



a **decrease** in the
proportion of patients with
uncontrolled asthma

regardless of practice type
(PC or SC)

Implementing the AIRQ® and
Asthma Checklist in those with
≥ 1 exacerbation(s) in the 12 months
prior to study entry (n=74)
led to a nearly

50% reduction
in the rate of annual
severe exacerbations

There were reductions in the rate of
annual exacerbations regardless of
whether there was a follow-up visit.

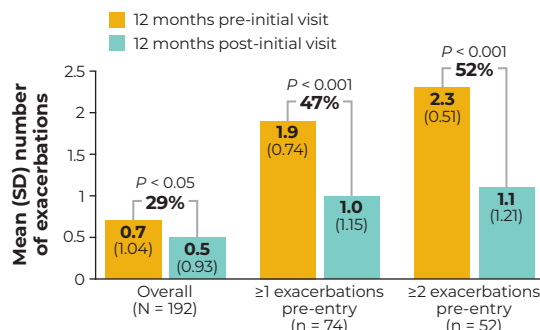
Results

Patients for Whom Specific Asthma Checklist Items Were Considered at the Initial Visit^a

Asthma Checklist Items Considered	Patients, n (%) Total (N=192)
Adherence	162 (84%)
Appropriate therapy	154 (80%)
Comorbidities	102 (53%)
Inhaler technique	90 (47%)
Spirometry	54 (28%)
Optimizing therapy with add-on or advanced treatment	52 (27%)
Alternative diagnoses and hidden comorbidities	49 (26%)
Home and/or work exposures	49 (26%)
Referral to an asthma specialty center, or other appropriate specialist or HCP in your area	48 (25%)
Step-up controller medication	48 (25%)
Asthma action plan	46 (24%)

^aNot mutually exclusive

Implementation of the AIRQ® and Asthma Checklist was associated with a significant reduction in exacerbations in the subsequent 12 months, regardless of prior exacerbation history



Significant reductions in annual exacerbations were also found for those with prior 12-month exacerbations regardless of practice type or occurrence of a follow-up visit

Results showed...

The AIRQ® and Asthma Checklist helped both PC and SC clinicians **improve asthma control** for their patients

Implementing the AIRQ® and Asthma Checklist led to **decreases in annual exacerbation occurrence** for patients in **both PC and SC**

The AIRQ® and Asthma Checklist are *available to you* and your patients when working to help **improve asthma control and decrease exacerbations**

The AIRQ® is *not* intended to:

- Diagnose asthma
- Replace the advice or treatment of a health care practitioner
- Direct specific actions to treat, mitigate, or improve asthma
- Collect or store any laboratory values or lung function test values

AIRQ®, Asthma Impairment and Risk Questionnaire; NWC, not well-controlled; PC, primary care; SC, specialty care; VPC, very poorly controlled; WC, well-controlled.

Reference

Beuther D, Tobin JN, Mendez K, et al. Implementing the Asthma Impairment and Risk Questionnaire (AIRQ®) and Asthma Checklist in Primary and Specialty Care Practices: Effects on Exacerbation Occurrence. Poster presented at the American Thoracic Society (ATS) International Conference; May 17–22, 2024; San Diego, CA, USA.

AIRQ® Related Publications

• Murphy KR, Chipps B, Beuther DA, et al; US PRECISION Advisory Board. Development of the Asthma Impairment and Risk Questionnaire (AIRQ): a composite control measure. *J Allergy Clin Immunol Pract*. 2020;8(7):2263–2274.e5. • Reibman J, Chipps BE, Zeiger RS, et al. Relationship Between Asthma Control as Measured by the Asthma Impairment and Risk Questionnaire (AIRQ) and Patient Perception of Disease Status, Health-Related Quality of Life, and Treatment Adherence. *J Asthma Allergy*. 2023;16:59–72. • Chipps BE, Murphy KR, Wise RA, et al. Evaluating construct validity of the Asthma Impairment and Risk Questionnaire using a 3-month exacerbation recall. *Ann Allergy Asthma Immunol*. 2022;128(5):544–552.e3. • Beuther DA, Murphy KR, Zeiger RS, et al. The Asthma Impairment and Risk Questionnaire (AIRQ) control level predicts future risk of asthma exacerbations. *J Allergy Clin Immunol Pract*. 2022;10(12):3204–3212.e2. • Chipps B, Zeiger RS, Beuther DA, et al. The Asthma Impairment and Risk Questionnaire enhances the assessment of asthma control. *Ann Allergy Asthma Immunol*. 2023;S1081-1206(23)00308-3. • Wise RA, Chipps B, Murphy KR, et al. Confirmatory cross-sectional validation of the Asthma Impairment and Risk Questionnaire. *J Allergy Clin Immunol Pract*. 2023;11(11):3531–3533. • McCann W, Murphy KR, Zeiger RS, et al. Assessing Meaningful Change in the Asthma Impairment and Risk Questionnaire. *Ann Allergy Asthma Immunol*. 2024;133(2):152–158. • Chipps BE, Zeiger RS, Beuther DA, et al. Advancing assessment of asthma control with a composite tool: the Asthma Impairment and Risk Questionnaire. *Ann Allergy Asthma Immunol*. 2024;133(1):49–56. • Murphy KR, Beuther DA, Chipps BE, et al. Impact of Clinical Characteristics and Biomarkers on Asthma Impairment and Risk Questionnaire Exacerbation Prediction Ability. *J Allergy Clin Immunol Pract*. 2024;3:S2213-2198(24)00436-7.

Scan

for tips on implementing these tools into your practice



Scan

to access the poster presented at the ATS 2024 conference and supplementary materials

