INTEGRATING THE AIRQ®
INTO YOUR DIGITAL PLATFORM

A guide for Implementing the Asthma Impairment and Risk Questionnaire (AIRQ®) into Systems Including Electronic Health Records (EHR)

PRECISION
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IMPLEMENTING AIRQ®: AN INTRODUCTION

We’re excited you’re implementing AIRQ®! Whether you’re using it in a study or have made the decision to implement it in your practice, here’s what you need to know to implement a digital version of AIRQ® consistent with its validation principles.

We understand that, in some cases, you may specify that the score not be presented to the patient at the time of AIRQ® completion, so in the instructions below, you will find carve-outs around the calculation and presentation of the score (and the accompanying “stick” graphic). Please follow the instructions that are consistent with how you will use the AIRQ®.

There are 2 versions of the AIRQ® available for you to implement:

- **Baseline AIRQ®**—This version is taken by the patient once every 12 months and is the version used as the visual reference in this guide.

- **Follow-up AIRQ®**—This version is taken by the patient whenever they see their health care professional (HCP) between annual visits to assess the impact of interventions or change in clinical status. A section on the differences between the Baseline and Follow-up AIRQ® instruments is found later in this document.

Versions of AIRQ® are available in US English and US Spanish. If you require an implementation of AIRQ® in a different language, we request that you do not translate AIRQ® yourself. Please reach out to our licensing partner, RWS, to obtain an official translation of AIRQ® in the desired language.

If you have any questions about these instructions or remaining true to the AIRQ® validation principles, please reach out to your licensing representative!

Here are links to the current versions of AIRQ®, both in digital and printable form:

1. Digital AIRQ®: [www.digitalairq.com](http://www.digitalairq.com)
2. Printable AIRQ®: [www.printairq.com](http://www.printairq.com)

Throughout this document, we will refer to the AIRQ® as seen in either of these locations as your reference AIRQ®, so please keep it handy either on the screen or printed out as you go through your implementation.
AIRQ® INFORMATION FOR HEALTH CARE PROFESSIONALS

AIRQ® Indications
The AIRQ® is a patient assessment tool intended to help identify patients 12 years of age and older whose health may be at risk because of uncontrolled asthma. This assessment is based on a series of patient-facing questions about asthma medications, respiratory symptoms, and utilization of health care resources. Depending on the patient’s responses to these questions, the patient will receive a score reflecting their level of asthma control. After completion of the AIRQ®, the patient and health care professional should discuss the responses to each of the individual questions, the total AIRQ® score, and the patient’s level of asthma control, and form a treatment plan.

The AIRQ® Is Not Intended To:

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

Health Care Professional Instructions for Use

1. Provide your patient with the AIRQ® during or immediately prior to their appointment.
2. Examine the responses to each of the individual questions, the total AIRQ® score, and the patient’s level of asthma control.
3. Discuss responses to each of the individual questions, the total AIRQ® score, and the patient’s level of asthma control with your patient.
4. Determine a treatment plan with your patient based on the information you’ve learned during your discussion and clinical assessment of the patient, and through responses to the AIRQ® questions.

OBTAINING YOUR AIRQ® LICENSE

We request that everyone who uses AIRQ® obtain a license from our licensing partner, RWS.

Use of AIRQ® as part of the treatment of patients in clinical practice or in an investigator-initiated clinical trial is free in perpetuity. Any use of AIRQ® in an industry-funded clinical trial may have an associated cost as outlined in the licensing agreement.

We ask that you obtain a license so that we can track where AIRQ® is in use in the marketplace, in the event that we need to communicate with all practices using AIRQ® about any future changes to the tool.

To obtain your license to use AIRQ®, please send an email to astrazeneca@rws.com requesting the AIRQ® licensing form. RWS will send you a form to complete, and upon return of the completed form, you’ll be sent an email indicating that you are licensed to use the tool.
Here is a summary of the implementation instructions as a visual reference (and an embedded copy if you want to zoom in more clearly).

**Asthma Impairment and Risk Questionnaire (AIRQ™)**

For use by health care providers with their patients 12 years and older who have been diagnosed with asthma. AIRQ™ is intended to be part of an asthma clinic visit.

Please answer all of the questions below.

**In the past 2 weeks,** has coughing, wheezing, shortness of breath, or chest tightness:
1. Bothered you during the day or more than 4 days?
2. Woke you up from sleep more than 1 time?
3. Limited the activities you want to do everyday?
4. Caused you to use your rescue inhaler or nebulizer everyday?

**In the past 2 weeks:**
5. Did you have to limit your social activities (such as visiting with friends/relatives or playing with pets/children) because of your asthma?
6. Did coughing, wheezing, shortness of breath, or chest tightness limit your ability to exercise?
7. Did you feel that it was difficult to control your asthma?

**In the past 12 months,** has coughing, wheezing, shortness of breath, or chest tightness:
8. Caused you to take steroid pills or shots, such as prednisone or Medrol®*
9. Caused you to go to the emergency room or have unplanned visits to a health care provider?
10. Caused you to use your rescue medication for more than 1 time?

**What Does My AIRQ™ Score Mean?**

The AIRQ™ is meant to help your health care providers talk with you about your asthma control. The AIRQ™ does not diagnose asthma. Whatever your AIRQ™ score (total YES answers), it is important for your health care team to discuss the number and answers to each of the questions with you. All patients with asthma, even those who may be well-controlled, can have an asthma attack. As asthma control worsens, the chance of an asthma attack increases. Only your medical provider can decide how best to assess and treat your asthma.

**Health Care Providers and Patients Take Action Together to Control Asthma**

- 0: Not at all
- 1-2: Very poorly controlled
- 3-4: Poorly controlled
- 5-6: Fairly controlled
- 7-8: Well controlled
- 9-10: Very well controlled

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AIRQ™ is a trademark of AstraZeneca.

Header background color can change to the color of your choice and it is not mandatory that you have a background color for this header at all.

Accent color of stem should match the accent color chosen in the header instructions.

Photos should appear in this order, however they may be split into multiple rows if your implementation requires this. Photos and text should be large enough for patients to read and recognize their rescue medication for answering question 4.

You may omit this graphic if not presenting the score to the patient. However if you are presenting the score, this graphic must be presented below the explanatory paragraph as shown.

This statement must be included beneath the photos.

You may omit this graphic if not presenting the score to the patient. However if you are presenting the score, this graphic must be presented below the explanatory paragraph as shown.

Footer color is optional and can be omitted, but should match the header color if you selected one. All text in the footer must be included.

Download AIRQ® Implementation Summary
IMPLEMENTATION BY SECTION

The Header and Instructions

All of the initial instructions that appear above question 1, inclusive of the header at the top of the AIRQ®, must be reproduced exactly as written.

We understand that your digital platform may limit the available formatting, so it is acceptable if there is no difference in decoration between the header and the instructions. However, aside from the exception around not presenting the stick or score (see below), all words in the header and the instructions must appear verbatim, and the paragraphs must be structured as shown.

If you do not specify that the AIRQ® should present the score to the patient, you may omit the line that reads “Click Calculate Score” and replace it with brief instructions directing the patient to click whichever Submit button your digital tool will provide to submit the form for processing. In this scenario, the explanatory text, the “stick” graphic, and the accompanying footnote that appears below the score calculation on your reference AIRQ® will be omitted.

The Questions

Each of the 10 questions on the AIRQ® must be presented in the exact order shown on your reference AIRQ® and must appear exactly as worded. Each question has only 2 allowable answers: “Yes” or “No.” “Yes” must appear to the left of “No,” as seen on your reference AIRQ®. For implementation as a 1-page, whole-form format, ensure that each section of questions is preceded by its corresponding stem language (e.g., *In the past 2 weeks...*).

The font you choose should be a clean-looking, sans-serif font, if one is available in your system. Be sure to respect all bolding and underlining seen in your reference AIRQ®, and replicate that decoration as is feasible in your implementation.

All text shown in black on your reference AIRQ® should continue to appear in black. The color used for nonblack text can vary based on your implementation; however, coloring should remain consistent throughout your implementation. For example, any text appearing in blue on your reference AIRQ® can use an accent color besides blue; however, all such blue text should be converted to whichever accent color you choose.

Usage of an accent color for the nonblack text within AIRQ® is preferential but not required. All text can be black if that’s all that your system supports.

Question 4 has 7 accompanying photos that must be presented beneath the text of the question and in the order shown. Ideally, they should be sized so that they all fit on 1 line, as shown on your reference AIRQ®. However, depending on the limitations of your digital platform, you may balance the size of the photos with their readability, wrapping them across multiple lines. Ultimately, you should ensure that the photos are effective so that patients can glean the information from the photos designed to help them answer question 4 accurately.

Here is a ZIP file containing these photos; your IT department may need to resize them to be suitable for your implementation:

Download AIRQ® Inhalers Photo Files
Completing the Form and Changing Answers After Completion

Our digital implementation of AIRQ® enforces that the questions be initially answered in order from question 1 to question 10. Patients are not prevented from going back to change their answers after initially responding to a question, but they cannot skip a question to answer an ensuing question. This is the ideal behavior, but it is not required. What is required is that all 10 questions be answered before the form is submitted by the patient. You cannot allow form submission with any unanswered questions.

Another important situation to consider is whether or not your system will allow patients to change answers on the form after they have submitted it for scoring. Our digital implementation of AIRQ® allows this; however, this is not required. It is acceptable for your implementation to lock the form after submission and require the patient to reset the entire AIRQ® form in order to change their answer(s).

However, once our digital AIRQ® has been submitted for scoring, any post hoc changes to the answers causes the scoring on our form to update in real time (resubmission not required). You should consider the ability of your platform to enable/disable changes to answers after submission and ensure that your implementation reacts accordingly.

Validating the Form and Calculating the Score (Score Presented to Patient)

If you specify that the score is not immediately calculated and presented to the patient, you may skip all the instructions in this section and instead follow the instructions in the “Submitting the Form” section (page 9).

Present a button labeled “Calculate Score” that is aligned with the right margin and directly beneath question 10. As mentioned before, this button should validate the form to ensure that all questions are answered before submission of the form is allowed.

Ideally, the “Calculate Score” button is not activated by your platform until all 10 questions have been answered. But if your platform will not support this behavior, it is acceptable to allow patients to click the button anytime so long as the button will validate that all 10 questions have been answered before accepting the form for submission.

If the validation script finds that 1 or more questions have not been answered, display an error message (a pop-up dialog box is preferable but not required) that reads “Please answer all 10 questions before submitting the AIRQ®.”

If all 10 questions are answered when the user clicks “Calculate Score,” the form should be accepted, and the score should be calculated and presented to the user. You should not present any warning or informational messages asking for confirmation before accepting the form and calculating the score. Once the user clicks the button, the form should be processed and accepted.

To calculate the score, tally all of the patient’s YES answers. Each YES answer = 1 point; each NO answer = 0 points. The score will be an integer from 0 to 10.
**Presenting the Score to the Patient**

If you specify that the score is not immediately calculated and presented to the patient, you may skip all the instructions in this section and proceed to the “Submitting the Form” section (page 9).

Beneath the button labeled “Calculate Score” should be some static text that reads “The score is calculated from the total number of YES responses from the questions above.” The expected behavior is, upon submission, this text will be replaced with the text presenting the user’s score as indicated in the next paragraph, however this is not required. If your platform cannot replace the above text with the below text upon submission of the form, you can omit the above text describing how the score is calculated and simply present the score to the user as indicated below, upon submission of the form.

Upon submission of the AIRQ®, underneath the “Calculate Score” button, you should present the patient’s score. The verbiage must read exactly: “Your AIRQ® Score (total YES responses) is <score value>.”

Underneath the patient’s score should be, verbatim, the explanatory “What Does My AIRQ® Score Mean?” paragraph, the “stick” graphic, and the accompanying Global Strategy for Asthma Management and Prevention footnote that appears on your reference AIRQ®:

**What Does My AIRQ® Score Mean?**

The AIRQ® is meant to help your health care providers talk with you about your asthma control. The AIRQ® does not diagnose asthma. Whatever your AIRQ® score (total YES answers), it is important for your health care team to discuss the number and answers to each of the questions with you. All patients with asthma, even those who may be well-controlled, can have an asthma attack. As asthma control worsens, the chance of an asthma attack increases. Only your medical provider can decide how to best assess and treat your asthma.

![Health Care Providers and Patients Take Action Together to Control Asthma](image)


You do not need to replicate the exact line wrapping in the explanatory paragraph seen here, so long as the text appears verbatim and all in 1 paragraph. A high-resolution copy of the “stick” image shown above is embedded below; your IT department may need to resize it appropriate to your implementation.

Download AIRQ® Stick
Submitting the Form (Score Not Presented to Patient)

Follow the instructions in this section only if you specify that the score is not immediately calculated and presented to the patient.

Present a button labeled “Submit AIRQ®” that is aligned with the right margin and directly beneath question 10. As mentioned before, this button should validate the form to ensure that all questions are answered before submission of the form is allowed.

Ideally, the “Submit AIRQ®” button is not activated by your platform until all 10 questions have been answered. But if your platform will not support this behavior, it is acceptable to allow patients to click the button anytime so long as the button will validate that all 10 questions have been answered before accepting the form for submission.

If the validation script finds that 1 or more questions have not been answered, display an error message (a pop-up dialog box is preferable but not required) that reads “Please answer all 10 questions before submitting the AIRQ®.”

If all 10 questions are answered when the user clicks “Submit AIRQ®,” the form should be immediately accepted. You should not present any warning or informational messages asking for confirmation before accepting the form.

Presenting the Footer

The footer must contain all of the elements, verbatim, seen in your reference AIRQ®:

- Credit for Pfizer’s ownership of the Medrol® registered trademark
- Specific verbiage indicating that all trademarks are the property of their respective owners
- Global Strategy for Asthma Management and Prevention footnote referenced in the “What does my AIRQ® score mean?” paragraph
- Our copyright, inclusive of the AIRQ® asset number (US-48491) and last updated date
- Our AIRQ® registered trademark statement

Ensuring Responsive Design and Mobile Device Considerations

Depending on how you plan on implementing AIRQ® and the capabilities of your particular platform, patients may be taking AIRQ® on a broad variety of devices with many different screen sizes and resolutions.

Be sure to test your implementation of AIRQ® on a representative set of target devices, both in portrait and landscape modes, to ensure that the AIRQ® is behaving in a manner that facilitates a good patient experience on those devices.

When taking AIRQ® on a small-form-factor mobile device, it is acceptable to present the questions on the screen one at a time. However, please ensure that each question is preceded by the stem text from the top of each respective section to retain context (eg, In the past 2 weeks...).
It is good practice to enable end users to navigate backward to change answers to questions they’ve previously answered, but it is not required to remain consistent with AIRQ®’s validation.

Furthermore, it is also good practice to present all 10 questions and their answers to the patient after question 10 has been answered to allow them to easily review their answers before submitting the AIRQ® to be scored, as well as to enable them to jump back to a specific question to easily change their answer. (However, neither is required.)

Please review how AIRQ® behaves on a small-form-factor mobile device by navigating to www.digitalairq.com and completing a test AIRQ®.

IMPLEMENTING THE FOLLOW-UP AIRQ®

It is recommended that patients complete the baseline AIRQ® once every 12 months. If you wish for patients to complete the AIRQ® for HCP encounters in the interim, patients should complete the follow-up AIRQ®.

The follow-up AIRQ® is almost identical to the baseline AIRQ®, the 1 exception is the stem language appearing immediately before question 8:

<table>
<thead>
<tr>
<th>Baseline AIRQ®</th>
<th>Follow-up AIRQ®</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past 12 months, has coughing, wheezing...</td>
<td>In the past 3 months, has coughing, wheezing...</td>
</tr>
</tbody>
</table>

If you wish to administer the follow-up AIRQ® in your practice, you will need to implement a second version of the AIRQ® in your system, observing the sole difference in language as noted above. It would be up to your staff to ensure that the patient is directed to the appropriate version of the AIRQ®, whether they need to complete the baseline version for their annual visit or the follow-up version for an interim encounter.

IMPLEMENTING AIRQ® IN US SPANISH OR ANOTHER LANGUAGE

Both versions of AIRQ®, baseline and follow-up, have been officially translated into US Spanish. Please contact your licensing representative for official copies of AIRQ® in US Spanish.

If you need AIRQ® translated into another language, we ask that you work with RWS to obtain an officially translated version and not to translate AIRQ® yourself.

ANY QUESTIONS?

If you have any questions about your implementation of AIRQ® and/or remaining consistent with the AIRQ® validation principles, please contact your licensing representative!
NOTES

- The Customer (e.g., physician, medical group, IDN) shall be solely responsible for implementation, testing, and monitoring of the instructions to ensure proper orientation in each Customer’s system.

- Capabilities, functionality, and setup (customization) for each individual system vary. AstraZeneca shall not be responsible for revising the implementation instructions it provides to a Customer in the event that Customer modifies or changes its software, or the configuration of its system, after such time as the implementation instructions have been initially provided by AstraZeneca.

- While platforms may assist health care professionals in identifying appropriate patients for consideration of assessment and treatment, the decision and action should ultimately be decided by a health care professional in consultation with the patient, after review of the patient’s records to determine eligibility, and AstraZeneca shall have no liability thereto.

- The instructions have not been designed for and are not tools and/or solutions for meeting Advancing Care Information and/or any other quality/accreditation requirement.

- All products are trademarks of their respective holders, all rights reserved. Reference to these products is not intended to imply affiliation with or sponsorship of AstraZeneca and/or its affiliates.

- Please provide any feedback on the instructions or use of the AIRQ® to precisionfeedback@astrazeneca.com.