

# Test for Respiratory and Asthma Control in Kids (TRACK™)

## OVERVIEW

It can be difficult for parents and other caregivers of young children to assess asthma control as evidenced by the higher rates of emergency department visits and hospitalizations in preschool versus school-aged children. Until now, there were no validated clinical assessment tools for evaluating respiratory and asthma control in the preschool patient population. A multidisciplinary team with the support of AstraZeneca developed and validated the first respiratory and asthma control assessment test – TRACK. This test has been designed specifically for parents and other caretakers of children under 5 years of age.

## WHAT IS TRACK?

TRACK is a 5-question tool that assesses respiratory and asthma control in patients under 5 years of age. It addresses both the risk and impairment domains outlined in the NHLBI/NAEPP-3 Asthma Guidelines. TRACK is a brief standardized caregiver-completed questionnaire that can be used by caregivers and interpreted by medical professionals.

## WHY WAS TRACK DEVELOPED?

Assessing respiratory and asthma control in young children can be challenging for a variety of reasons

- Childhood asthma is a variable disease characterized by recurrent episodes of respiratory symptoms, which may remit or progress to persistent disease
- Children with intermittent symptoms can have severe exacerbations
- Approximately 40% of children who wheeze in the first 3 years of life will continue to wheeze at 6 years of age
- There is a lack of objective measures for assessing control in young children
- Spirometry is not feasible for preschool children
- Currently available validated questionnaires are designed for children 4 years and older but only measure the impairment domain without considering the risk domain of control

Both physicians and caregivers agreed that a better approach to assessing respiratory and asthma control in young children was needed.

## HOW WAS TRACK DEVELOPED?

A large set of possible test questions was identified from qualitative interviews with caregivers, pediatricians, and pediatric respiratory specialists. These questions were guided by NHLBI guidelines and covered

- The frequency and severity of respiratory symptoms
- The impact of these symptoms on the child's life
- Health care utilization

Then, using logistic regression methods, the five questions with the greatest predictive value and the highest ability to discriminate between controlled and uncontrolled patients, based on ratings of control as outlined in the current NHLBI Expert Panel-3 Asthma Guidelines, were chosen to comprise the final TRACK tool.

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## WHY USE TRACK?

TRACK provides an effective means for caregivers to assess respiratory and asthma control in young children. It is easy for caregivers to administer and score. This will better prepare them for a discussion about asthma control.

## HOW DO YOU USE TRACK?

Caregivers can complete the TRACK questionnaire at home or at any point during a child's visit to your office.

- Check-in time is ideal
- Caregivers should answer all five TRACK questions on their own, based on their own interpretation of each question
- The test is then scored on a scale of 0 to 100
- A score < 80 means uncontrolled, and a score ≥ 80 means controlled
- You can help the caregiver interpret the score during the course of the child's office visit

Caregivers can use TRACK at home to assess their child's asthma control, and should their child's score drop below 80, take steps toward further evaluation.

**Please check the April 2009 issue of the Journal of Allergy and Clinical Immunology for the full publication on TRACK.**

## REFERENCES

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4. National Asthma Education and Prevention Program. Expert Panel Report #3: *Guidelines for the Diagnosis and Management of Asthma.* NIH Publication No. 08-4051. Bethesda, MD: U.S. Department of Health and Human Services; National Institutes of Health; National Heart, Lung and Blood Institute; National Asthma Education and Prevention Program; August 2007.
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