



Tools for Better Asthma Care in Health Maintenance Organizations

Improving quality of care among asthmatics in managed care

SUMMARY

During 1997 and 1998, researchers from Innovative Medical Research—a Towson, Md. company that conducts research clinical trials for a variety of clients—developed and tested three research tools that provide the foundation for a planned asthma intervention appropriate for use in managed care organizations.

The research team also used two of the tools to collect preliminary data.

Key Results and Findings

- The project team developed three research tools that provide the foundation for a planned asthma intervention appropriate for use in managed care organizations:
 - A brief, two-minute interview that can be conducted by telephone to assess problems related to asthma over the previous two weeks.
 - A patient interview to assess knowledge of self-management skills and attitudes toward effective asthma control.
 - A physician interview to assess clinical knowledge of asthma treatment guidelines.
- Preliminary fielding of the interviews among patients and primary care doctors in a health maintenance organization (HMO) showed that:
 - Asthma patients scored poorly on knowledge of measures to control environmental exposure, long-term control medications, and asthma self-management strategies.
 - Physicians scored poorly on the assessment of the severity of asthma, knowledge of the indications for use of a common medicine for the treatment of asthma, and developing written plans with patients for asthma self-management.

Funding

The Robert Wood Johnson Foundation (RWJF) supported this project through a grant of \$199,913.

THE PROJECT

Asthma-related morbidity and mortality continue to increase, especially among poor and medically underserved populations. Experts believe that more than 90 percent of asthmatics can manage their own care, but there have been a number of barriers to improving asthma outcomes, including limitations in physicians' clinical knowledge of asthma and asthma management, limitations to patients' ability to manage their own disease based on their knowledge and attitudes, and limited availability of simple, reliable, and valid tools to monitor patient health status and outcomes.

The demand for cost control in managed care settings has dictated the need to develop cost-effective strategies for targeting asthmatics in need of care and improving the management of their disease.

This project sought to:

- Develop a telephone assessment tool that would be cost-effective in managed care settings.
- Evaluate knowledge of asthmatic plan members in the management of their disease and compliance with recommended treatment.
- Evaluate knowledge and treatment strategies (including the use of clinical guidelines for the treatment of asthma) of clinicians who treat asthma patients.

The tools developed with RWJF grant support were designed to become part of an integrated asthma management program. The grantee, Innovative Medical Research, conducts research clinical trials, epidemiological surveys, and market research for the pharmaceutical, biomedical, and consumer products industries.

RESULTS

- **The project team developed the AGQ, a brief, two-minute interview that can be conducted by telephone to assess problems related to asthma over the previous two weeks.** Guidelines (1997) from the National Asthma Education Program of the National Heart, Lung and Blood Institute provided the framework for the questionnaire. Focus groups with asthmatics, a longitudinal study to determine which symptoms and asthma-related features predicted current pulmonary function, and a reliability study of a draft version contributed to the development of the AGQ.

- **The project team developed and tested a patient interview to assess knowledge of self-management skills and attitudes toward effective asthma control.** It tested the instrument on 136 asthmatics randomly selected from a health maintenance organization (HMO). (See [Findings](#) for survey results.) The interview addressed the following domains:
 - Causes of asthma
 - Knowledge of measures to control exposure to allergens
 - Assessment of medication use, adherence to treatment regimens, and satisfaction with medication
 - Knowledge and use of asthma self-management strategies
 - Knowledge of the basic clinical information on asthma, its etiology, and treatment
 - Attitudes and beliefs about asthma, asthma self-management, health care, and family support
 - Demographics
- **The project team developed and fielded a physician interview to assess clinical knowledge of asthma treatment guidelines.** A total of 68 primary care physicians practicing in an HMO participated in the survey. (See [Findings](#) for survey results.) The domains addressed in the physician interview included:
 - Initial asthma assessment and diagnosis.
 - Pharmacologic therapy.
 - Control of factors contributing to asthma severity.
 - Patient management education and interaction.

Findings

Project staff reported the following findings in their final report to RWJF and in an article in *Pediatric Asthma, Allergy and Immunology*, published in 2001.

- **In interviews with 136 asthmatics, respondents scored poorly on knowledge of measures to control environmental exposure, long-term control medications that prevent asthma-related symptoms, and asthma self-management strategies, such as early warning signs of an asthma "attack."**
- **The interviews with 68 primary care physicians showed that:**
 - More than half of the physicians underassessed asthma severity based on symptoms and pulmonary function.

- Almost 75 percent of the physicians incorrectly stated the indications for the use of long-acting inhaled beta-agonists (a pharmacologic therapy for asthma).
- Almost half of the physicians did not develop written plans for patient self-management of asthma.

Limitations

- **The study was conducted in one mid-sized HMO in the Mid-Atlantic region, which may not be representative of other HMOs.**

Communications

One article about the study has been published in *Pediatric Asthma, Allergy and Immunology*. Project staff also presented its findings in poster sessions and presentations at several conferences. (See the [Bibliography](#) for details.) In addition, the grantee organization submitted information about the project to RWJF for a media guide on asthma that RWJF was preparing.

AFTERWARD

Innovative Medical Research plans to refine and validate the AGQ. It is also searching for funding to continue planning the asthma intervention for which it developed the tools under this grant.

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Grant ID# 31669

BIBLIOGRAPHY

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Presentations and Testimony

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Judith A. Ricci, "Instruments for Measuring Asthma Severity," at the Annual Meeting of the Drug Information Association, June 1999, Baltimore.

A. Wright, RB Lipton, Walter F. Stewart and Judith A. Ricci, "Implementing Assessment of Severity to Guide Treatment Decisions and to Optimize Outcomes," at the Second Annual European Conference of the International Society of Pharmacoeconomics, November 1999, Edinburgh, Scotland.